

SHEET INDEX

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FS 2 LIGHT REGISTRATION AND CONTROL CIRCUIT	B2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FS 3 NO. 10 2/2 CONVERTER CIRCUIT	B3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FS 4 CONTROLLER CONNECTOR AND GROUP SELECT CIRCUIT	B4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FS 5 SWITCH CONNECTOR AND CONTROL CIRCUIT - 0	B5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FS 6 SWITCH CONNECTOR AND CONTROL CIRCUIT - 1	B6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FS 7 CONNECTOR GROUP AND CONTROL CIRCUIT - 2	B7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FS 8 CONNECTOR GROUP AND CONTROL CIRCUIT - 1	B8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FS 9 TWO-WIRE ON ONE-WIRE OR 2-WIRE E & M	B9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FS 10 ONE 6-WIRE	B10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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FS 14 MAINTENANCE TEST CONNECTION 6-WIRE	B14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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APP FIG. 3	C3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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APP FIG. 5	C5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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EQUIPMENT NOTES																										
INFORMATION NOTES																										

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CAD 1	G1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 2	G2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 3	G3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 4	G4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 5	G5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 6	G6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 7	G7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 8	G8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 9	G9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 10	G10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 11	G11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 12	G12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 13	G13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 14	G14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 15	G15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 16	G16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 17	G17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 18	G18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 19	G19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CAD 20	G20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

SHEET INDEX NOTES

- WHEN CHANGES ARE MADE IN THIS DRAWING, ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
- THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
- THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
- SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
- THE LAST ISSUE NUMBER OF THE SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

SUPPORTING INFORMATION

CATEGORY	NO.
EQUIPMENT DRAWINGS	J99350A-1 THRU J99350A-10 J99350A-11 J99350A-12 J99350A-13 J99350A-14 J99350A-15 J99350A-16 J99350A-17 J99350A-18 J99350A-19 J99350A-20 J99350A-21 J99350A-22 J99350A-23 J99350A-24 J99350A-25
EQUIPMENT DESIGN BLOCK	J99350A-26 J99350A-27 J99350A-28 J99350A-29 J99350A-30 J99350A-31 J99350A-32 J99350A-33 J99350A-34 J99350A-35 J99350A-36 J99350A-37 J99350A-38 J99350A-39 J99350A-40 J99350A-41 J99350A-42 J99350A-43 J99350A-44 J99350A-45 J99350A-46 J99350A-47 J99350A-48 J99350A-49 J99350A-50 J99350A-51 J99350A-52 J99350A-53 J99350A-54 J99350A-55 J99350A-56 J99350A-57 J99350A-58 J99350A-59 J99350A-60 J99350A-61 J99350A-62 J99350A-63 J99350A-64 J99350A-65 J99350A-66 J99350A-67 J99350A-68 J99350A-69 J99350A-70 J99350A-71 J99350A-72 J99350A-73 J99350A-74 J99350A-75 J99350A-76 J99350A-77 J99350A-78 J99350A-79 J99350A-80 J99350A-81 J99350A-82 J99350A-83 J99350A-84 J99350A-85 J99350A-86 J99350A-87 J99350A-88 J99350A-89 J99350A-90 J99350A-91 J99350A-92 J99350A-93 J99350A-94 J99350A-95 J99350A-96 J99350A-97 J99350A-98 J99350A-99 J99350A-100
CURRENT DRAFT DATA	J99350A-101 J99350A-102 J99350A-103 J99350A-104 J99350A-105 J99350A-106 J99350A-107 J99350A-108 J99350A-109 J99350A-110 J99350A-111 J99350A-112 J99350A-113 J99350A-114 J99350A-115 J99350A-116 J99350A-117 J99350A-118 J99350A-119 J99350A-120 J99350A-121 J99350A-122 J99350A-123 J99350A-124 J99350A-125 J99350A-126 J99350A-127 J99350A-128 J99350A-129 J99350A-130 J99350A-131 J99350A-132 J99350A-133 J99350A-134 J99350A-135 J99350A-136 J99350A-137 J99350A-138 J99350A-139 J99350A-140 J99350A-141 J99350A-142 J99350A-143 J99350A-144 J99350A-145 J99350A-146 J99350

APPARATUS INDEX

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S9A1-2	13AD	6AB
S9B0-1	7AD	10AB
S9B0-2	7AD	21AB
S9B1-1	14AD	32AB
S9B1-2	14AD	
S9C0-1	8AD	

59C1-2 15A0

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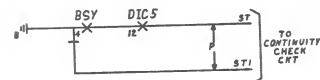
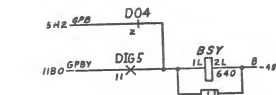
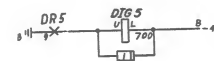
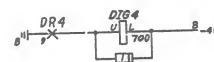
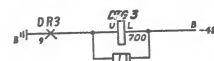
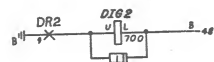
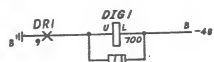
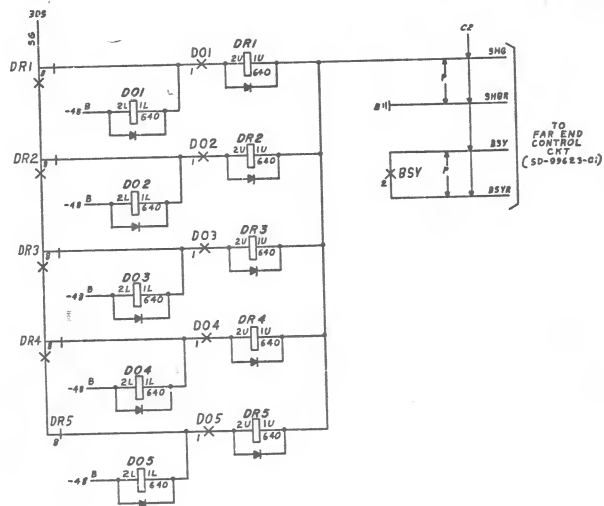
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OPTION INDEX			
APP OR WMS	RATED OR ISSUE	REF NOTES	LOC
Z	STD 1		APP FIG. 3
Y	STD 1		APP FIG. 3
X	STD 1		APP FIG. 2
W	STD 1		CAD 2,3,11,12
V	STD 1		APP FIG. 2
T	STD 1		106A,106B,106C, 116A,116B,116C, 146A,146B,146C, 186A,186B,186C
S	STD 7B		1263,1275,126A, 1276,1275,1279, 1963,1975,196A, 196B,196C,1979, 2378,2778
R	STD 7B		1273,1276,1279, 2378,2778
Q	STD BAR	102,112	SHEET 29
P	STD BAR	102,112	SHEET 29
N	STD BAR	102,112	SHEET 29
M	STD BAR	102,112	SHEET 29
K	STD 9B	104	168(O,2,6),1767, 1769,1776(7-9),1867, 1869,1876(7-9), 2818,C,310 CAD 1,10
J	STD 9B	101,102	APP FIG. 2 36A,168(O,2,6),1767, 1769,1776(7-9),1867, 1869,1876(7-9), 2818,C,310,308A, 301,2,2,10,11,12
H	STD 9B	102	APP FIG. 2
G	STD 102	102,104	2801
F	STD 102	102,104	2801

CONTROLLER AND CONNECTOR CIRCUIT		SD-99560-01-A4
BELL TELEPHONE LABORATORIES		
65		

13A

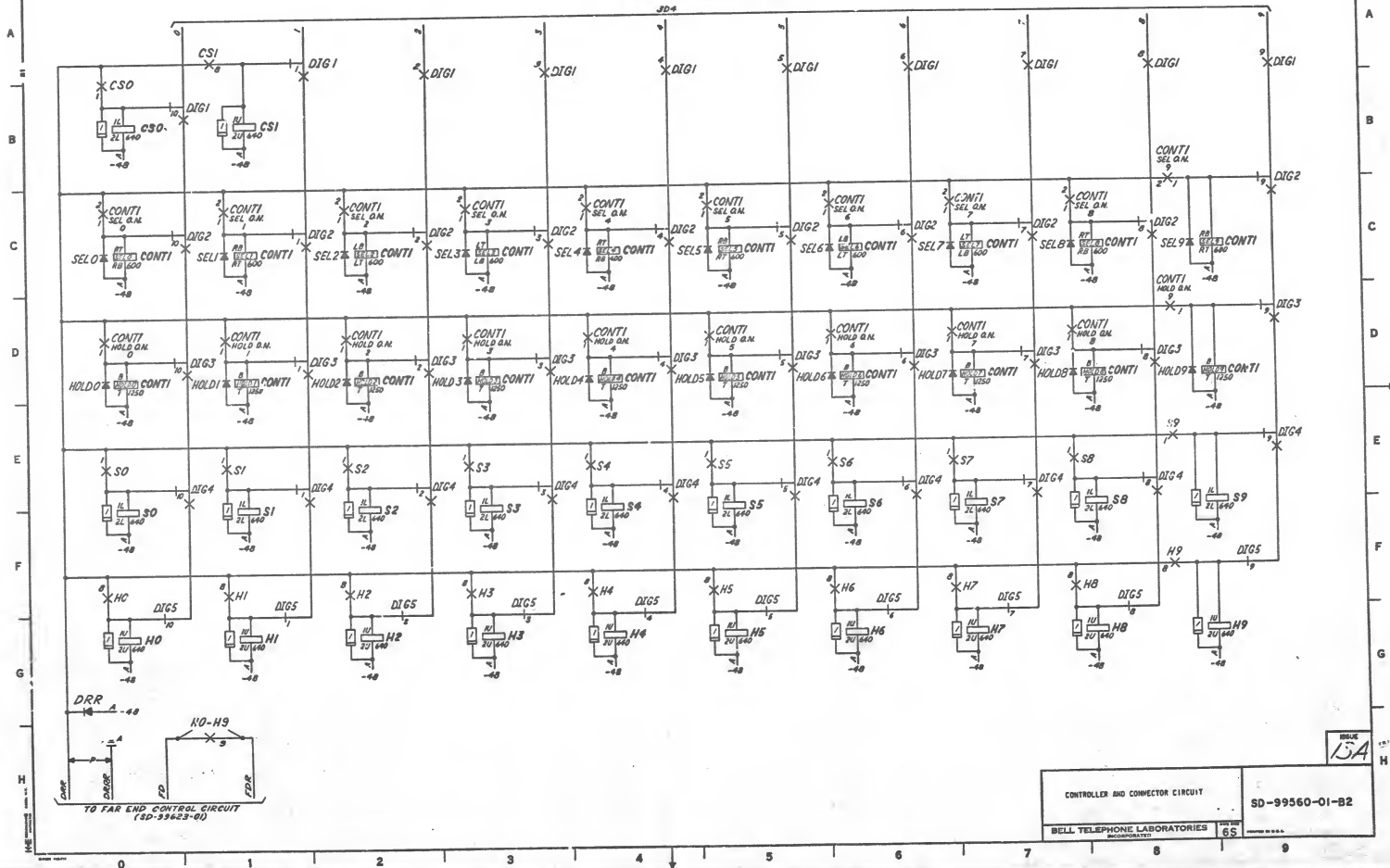
FS 1 CONTROLLER STEERING CIRCUIT



FS 2

DIGIT REGISTRATION AND CONTROL CIRCUIT

3D4



CONTROLLER AND CONNECTOR CIRCUIT

SD-99560-01-B2

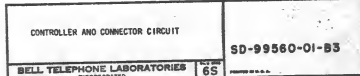
BELL TELEPHONE LABORATORIES

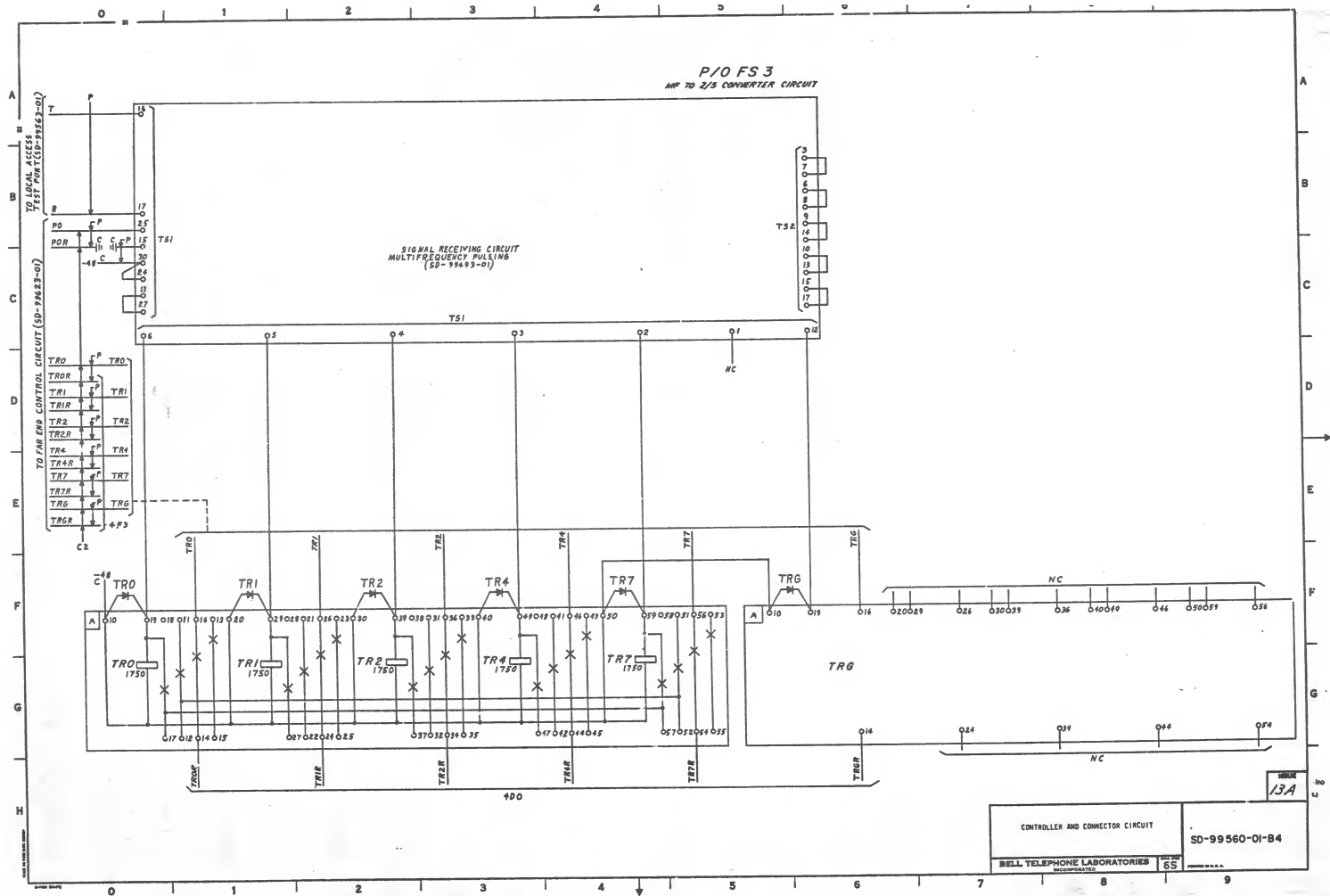
INCORPORATED

65

MADE IN U.S.A.

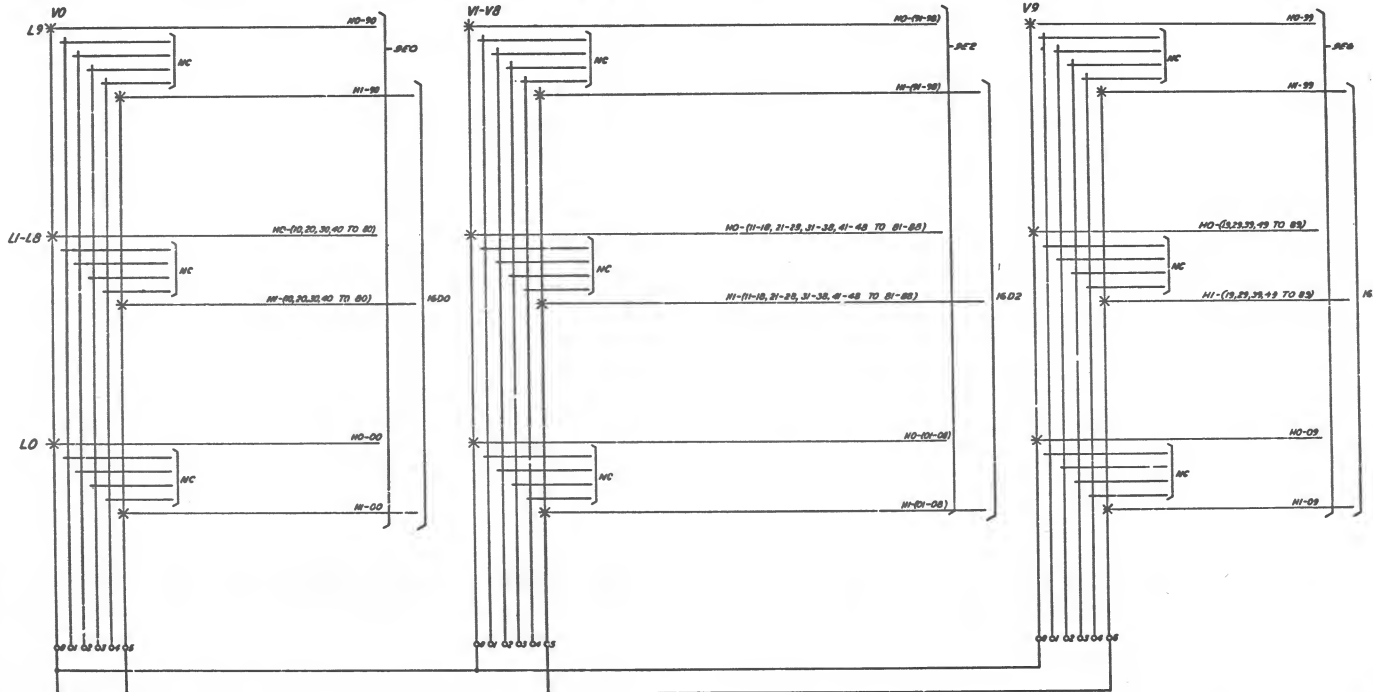
SD-99560-01-83





FS 4

CONTI 509



CONTROLLER AND CONNECTOR CIRCUIT

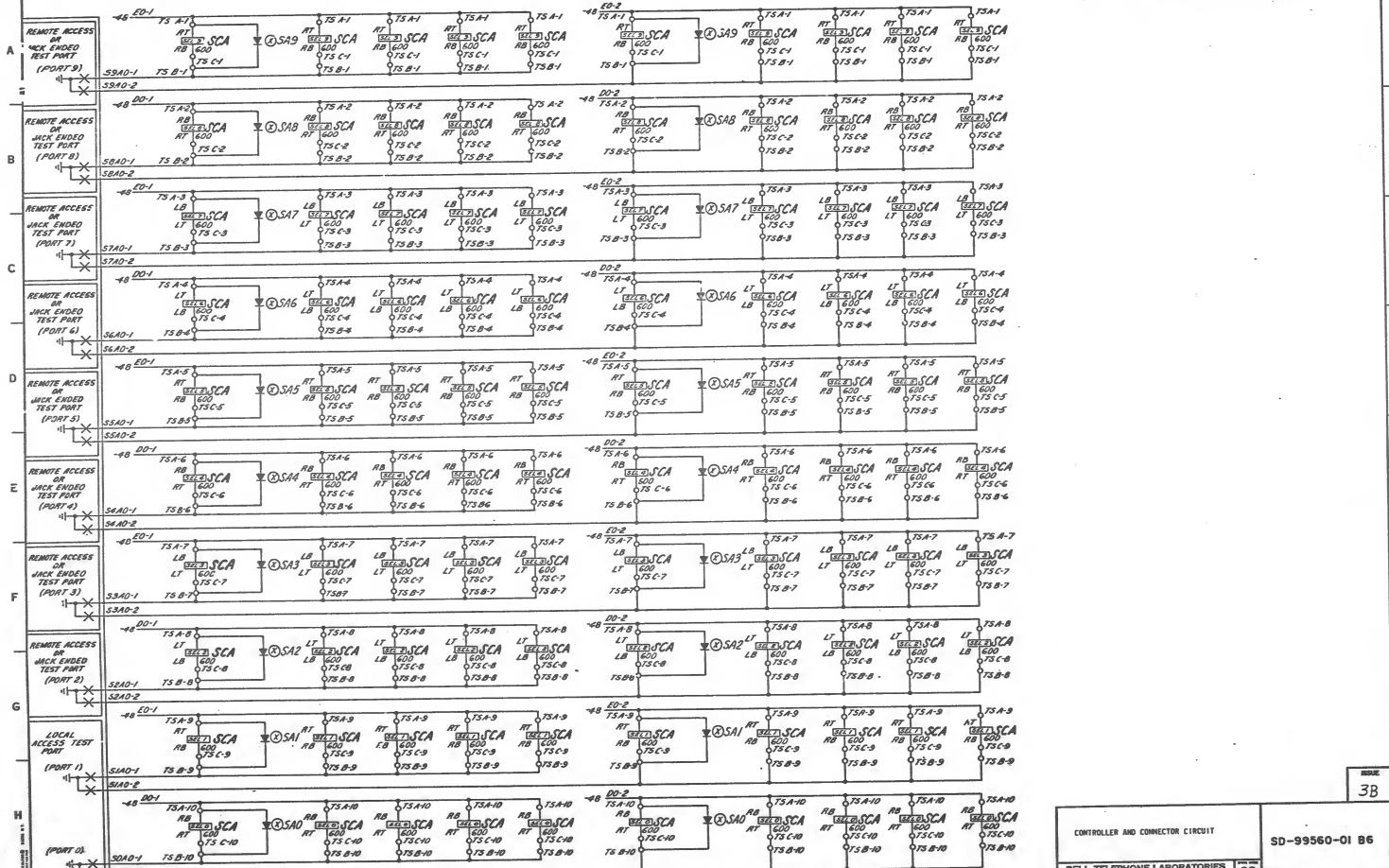
BELL TELEPHONE LABORATORIES

65

SD-92560-01-B5

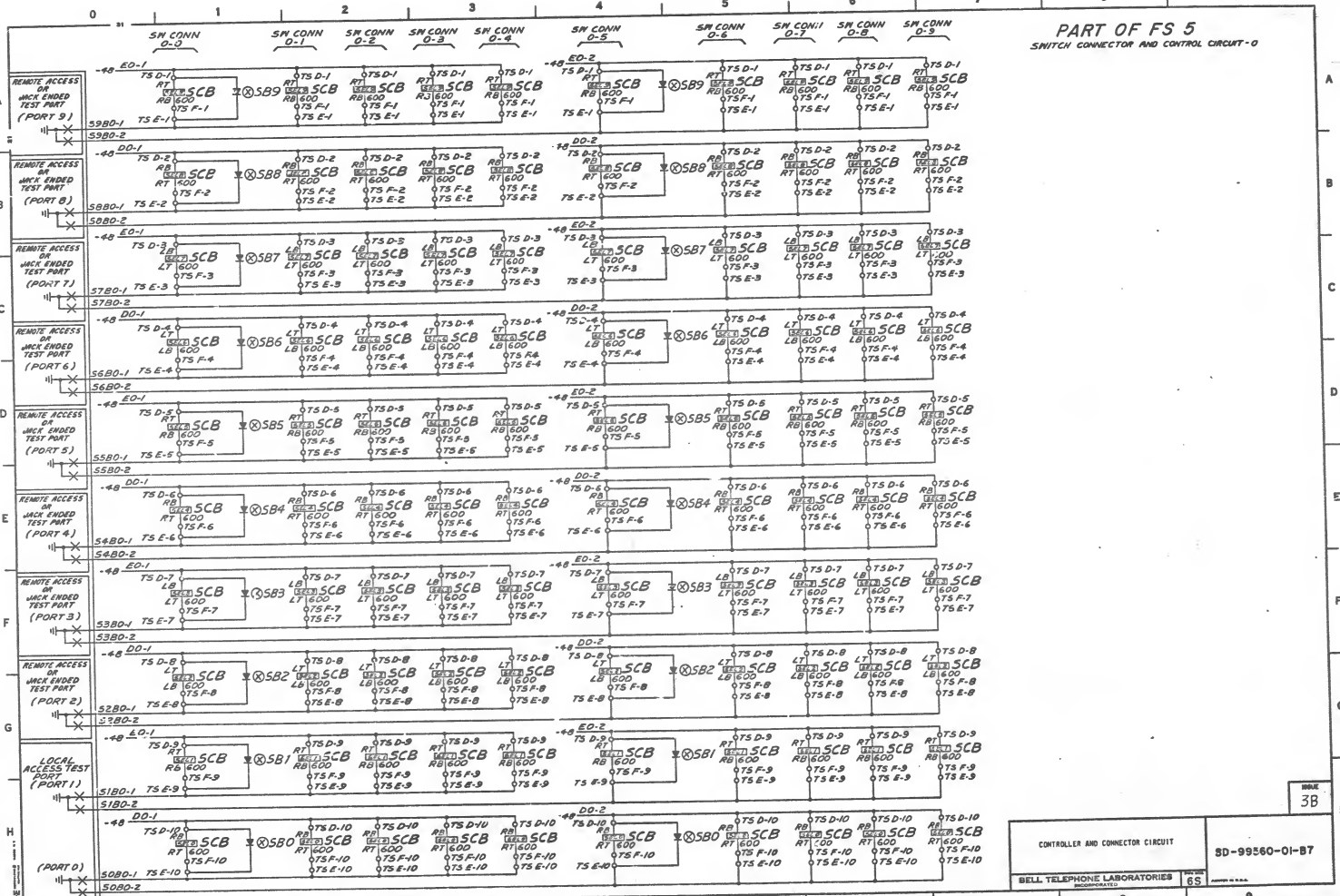
13A

PART OF FS 5
SWITCH CONNECTOR AND CONTROL CIRCUIT - O

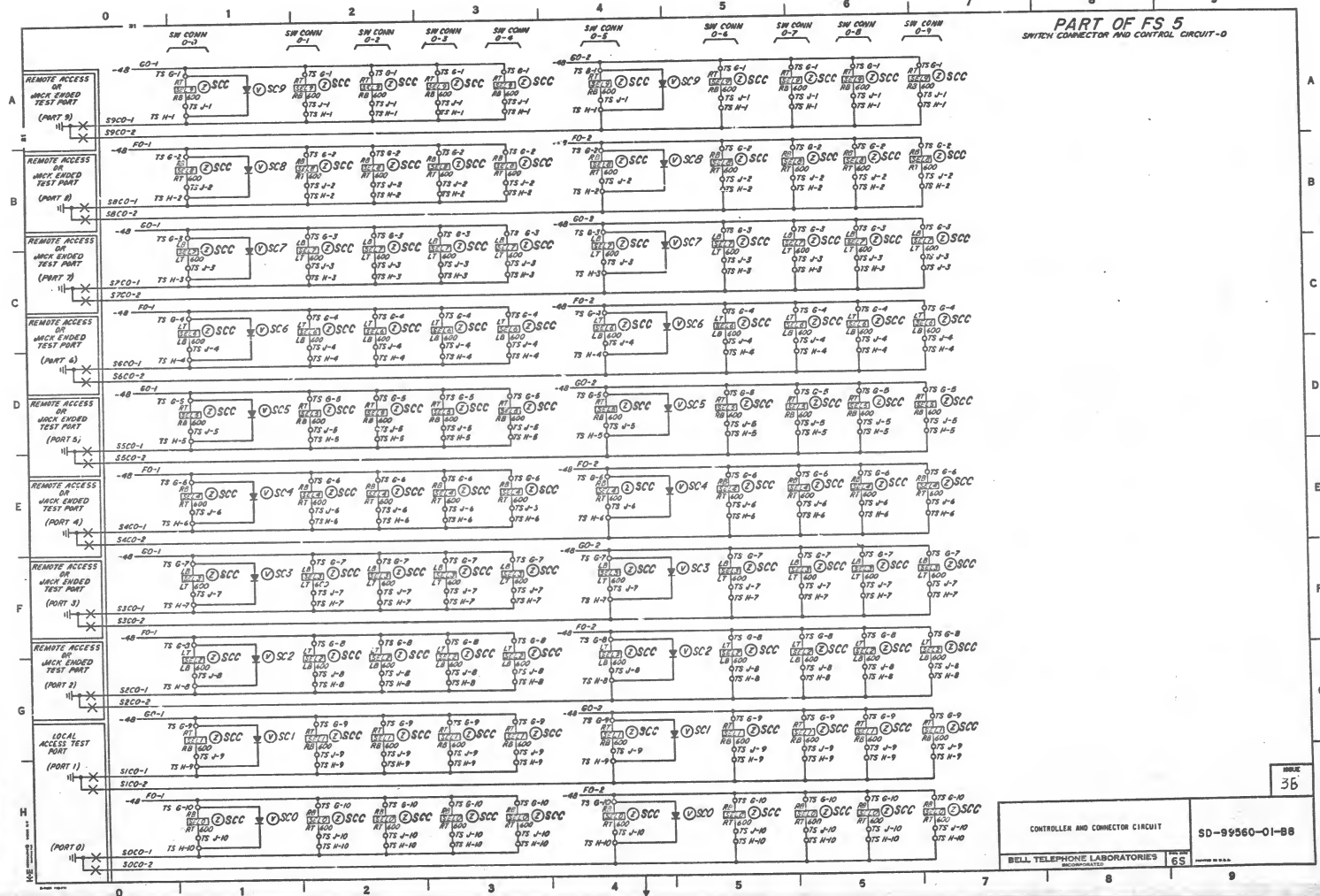


98-10-099560-08

PART OF FS 5 SWITCH CONNECTOR AND CONTROL CIRCUIT-0



PART OF FS 5 SWITCH CONNECTOR AND CONTROL CIRCUIT-0



SD-99560-01-B8

36

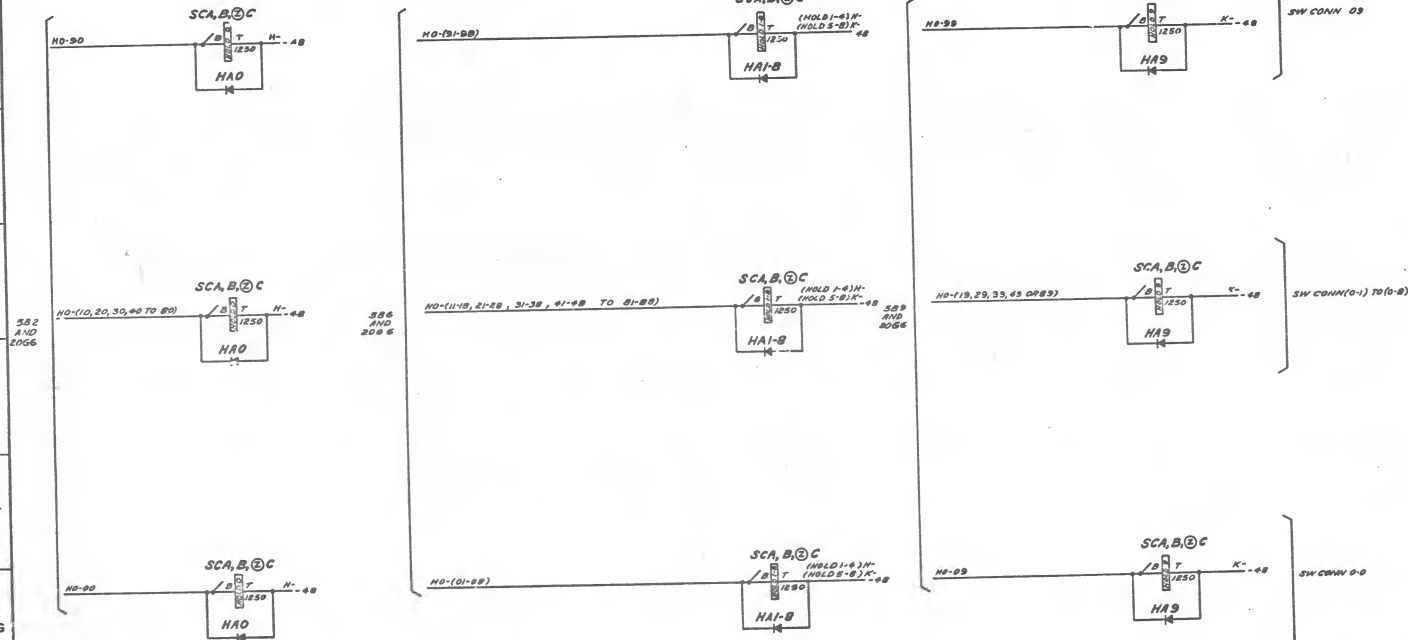
CONTROLLER AND CONNECTOR CIRCUIT

SD-99560-01-B8

BELL TELEPHONE LABORATORIES

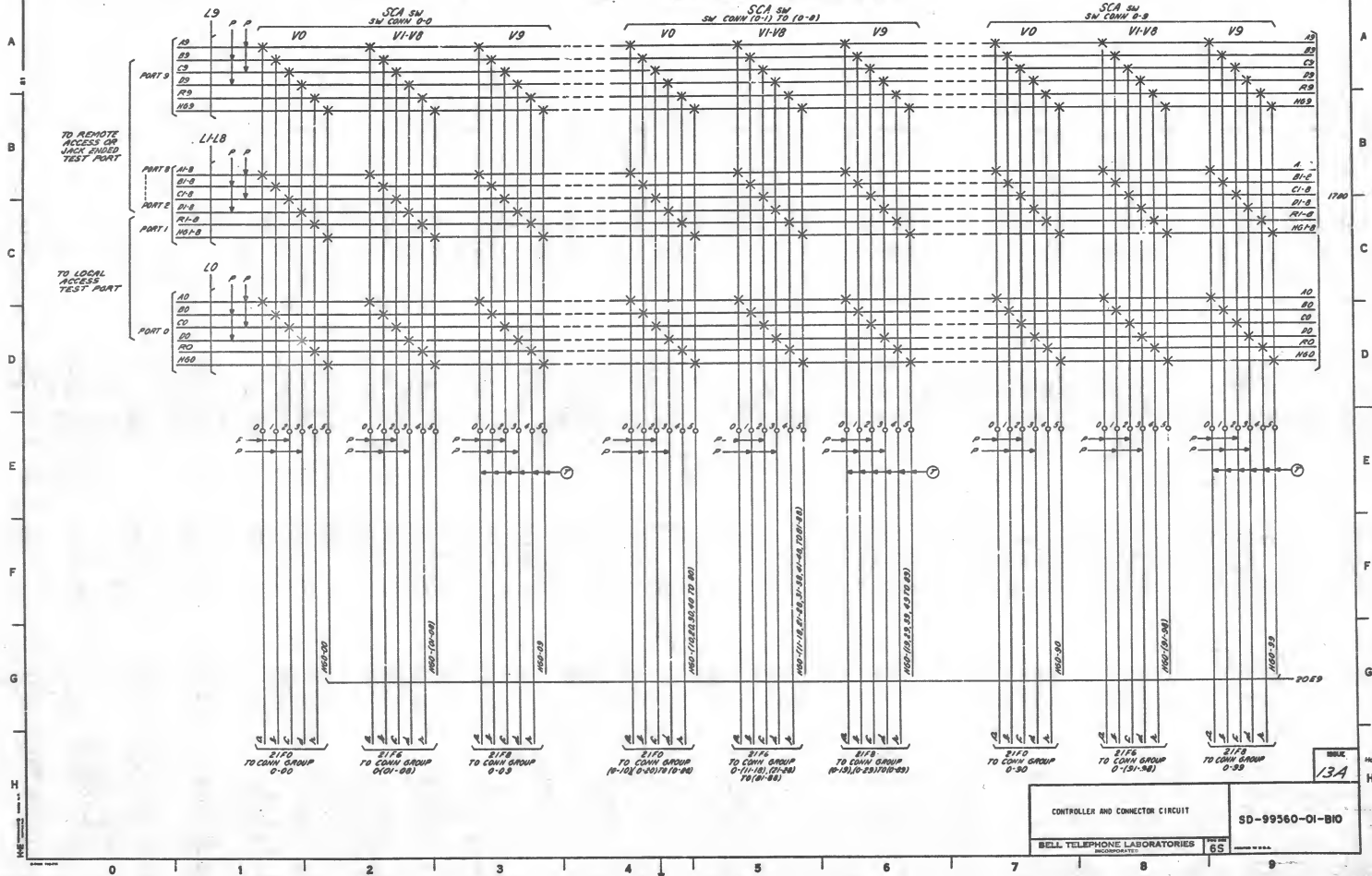
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PART OF FS 5
SWITCH CONNECTOR AND CONTROL CIRCUIT-0

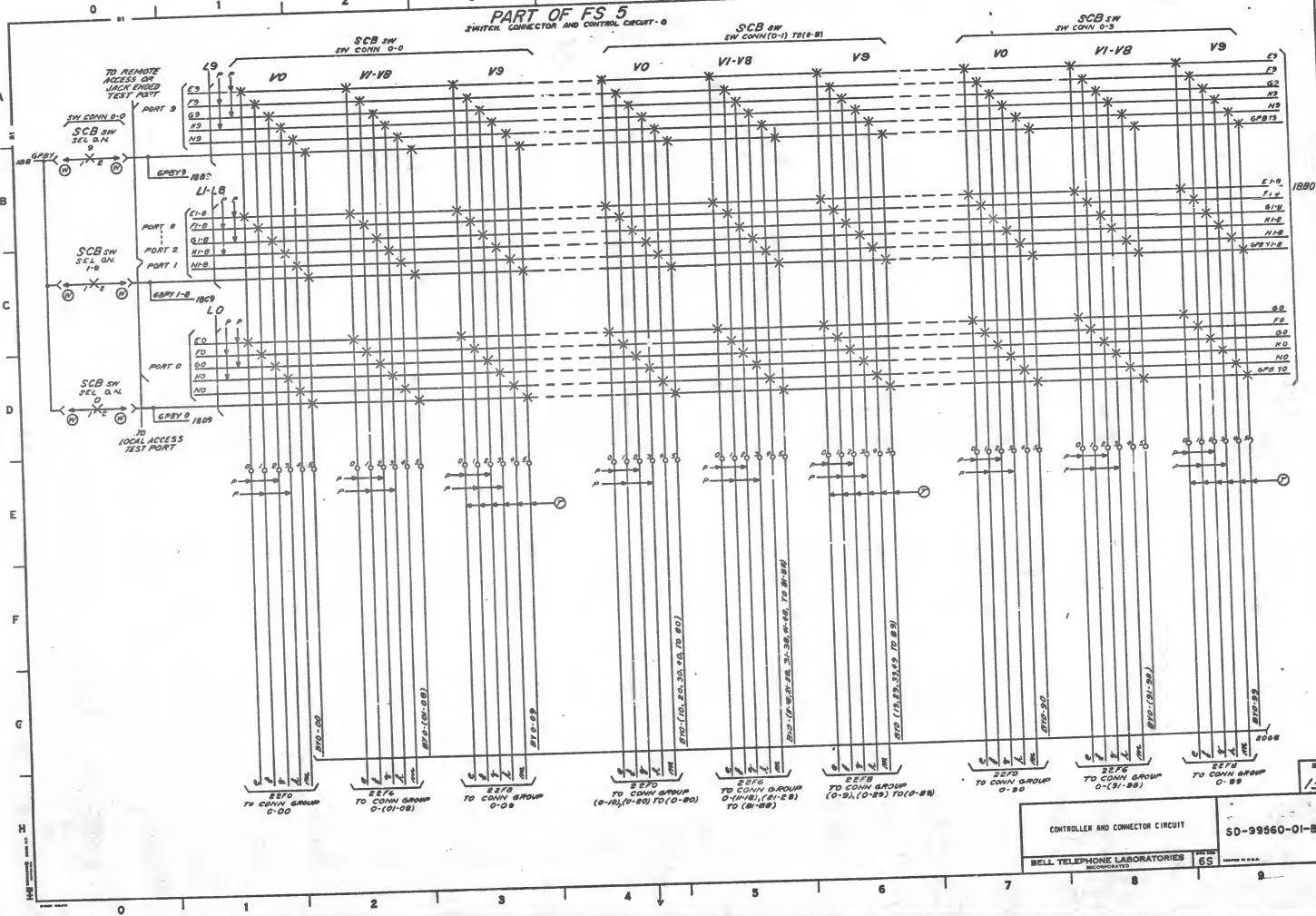


SD-99560-01-89

PART OF FS 5 SWITCH CONNECTOR AND CONTROL CIRCUIT - D

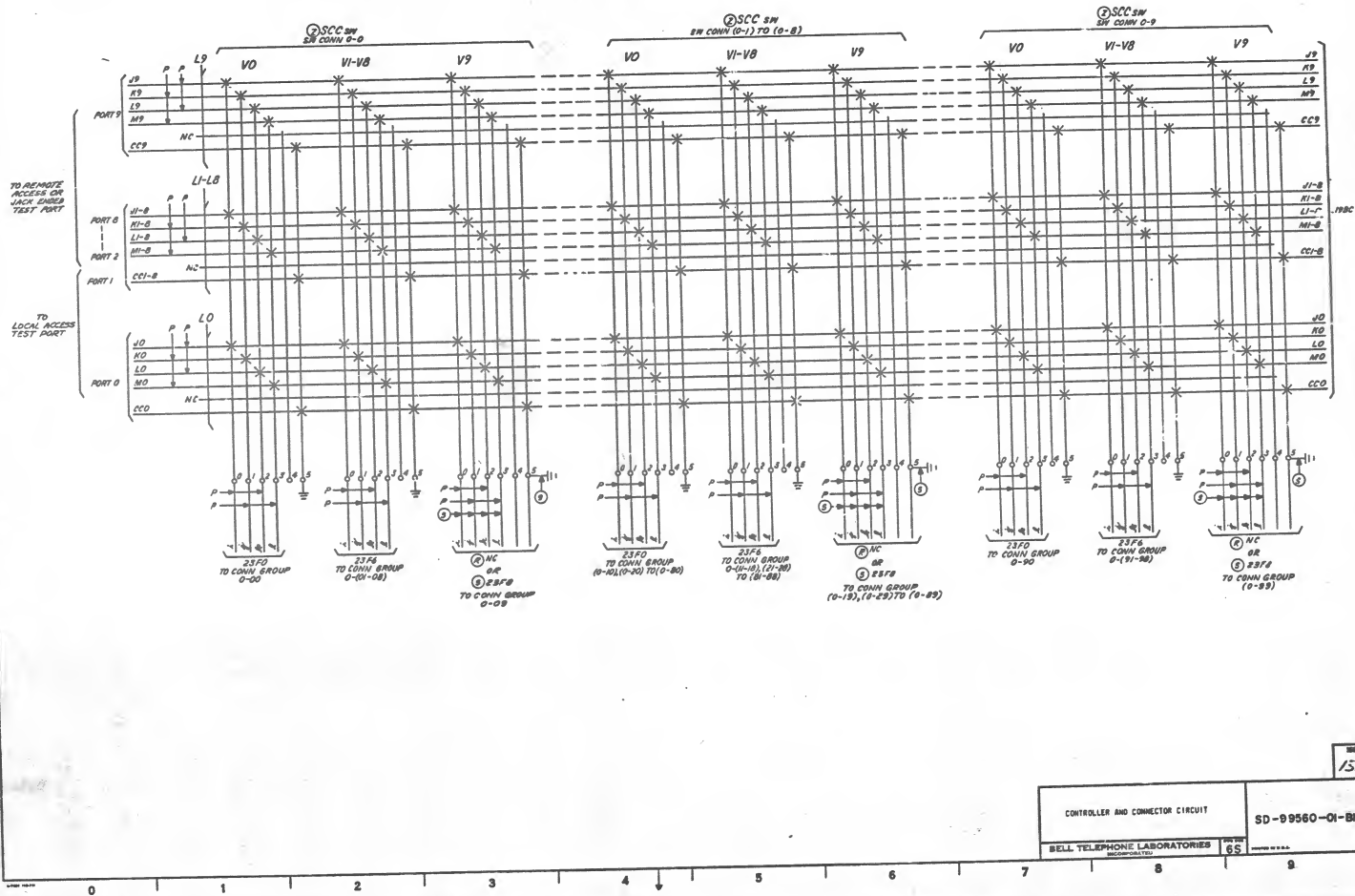


PART OF FS 5 SWITCH CONNECTOR AND CONTROL CIRCUIT-0



SD-39560-01

PART OF FS 5
SWITCH CONNECTOR AND CONTROL CIRCUIT - 0



SD-99560-01-B12

15A

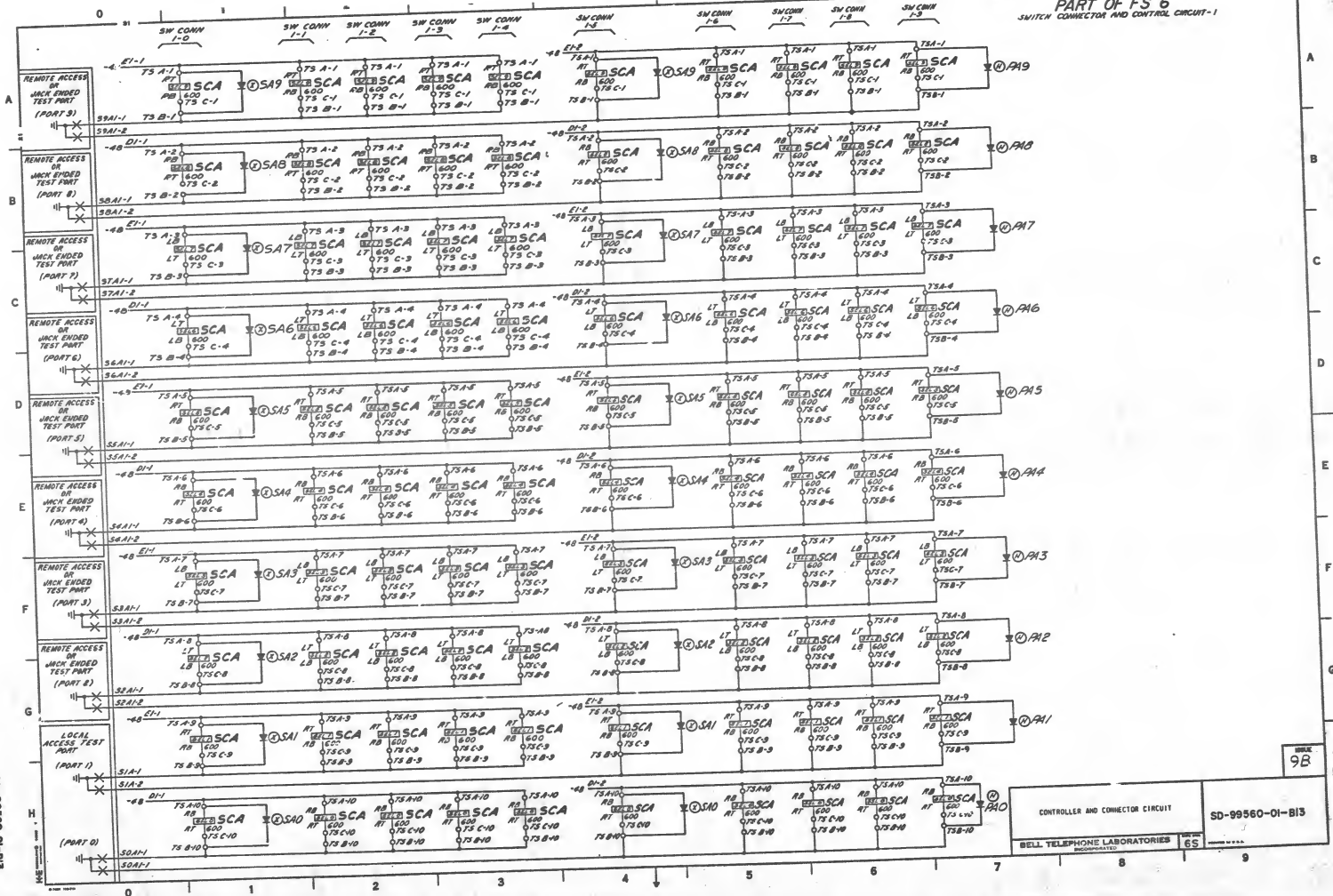
CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES

SD-99560-01-B12

65

50-10-09956-05



9B

CONTROLLER AND CONNECTOR CIRCUIT

SD-9956-01-B13

BELL TELEPHONE LABORATORIES

65

PART OF FS 6
SWITCH CONNECTOR AND CONTROL CIRCUIT-1

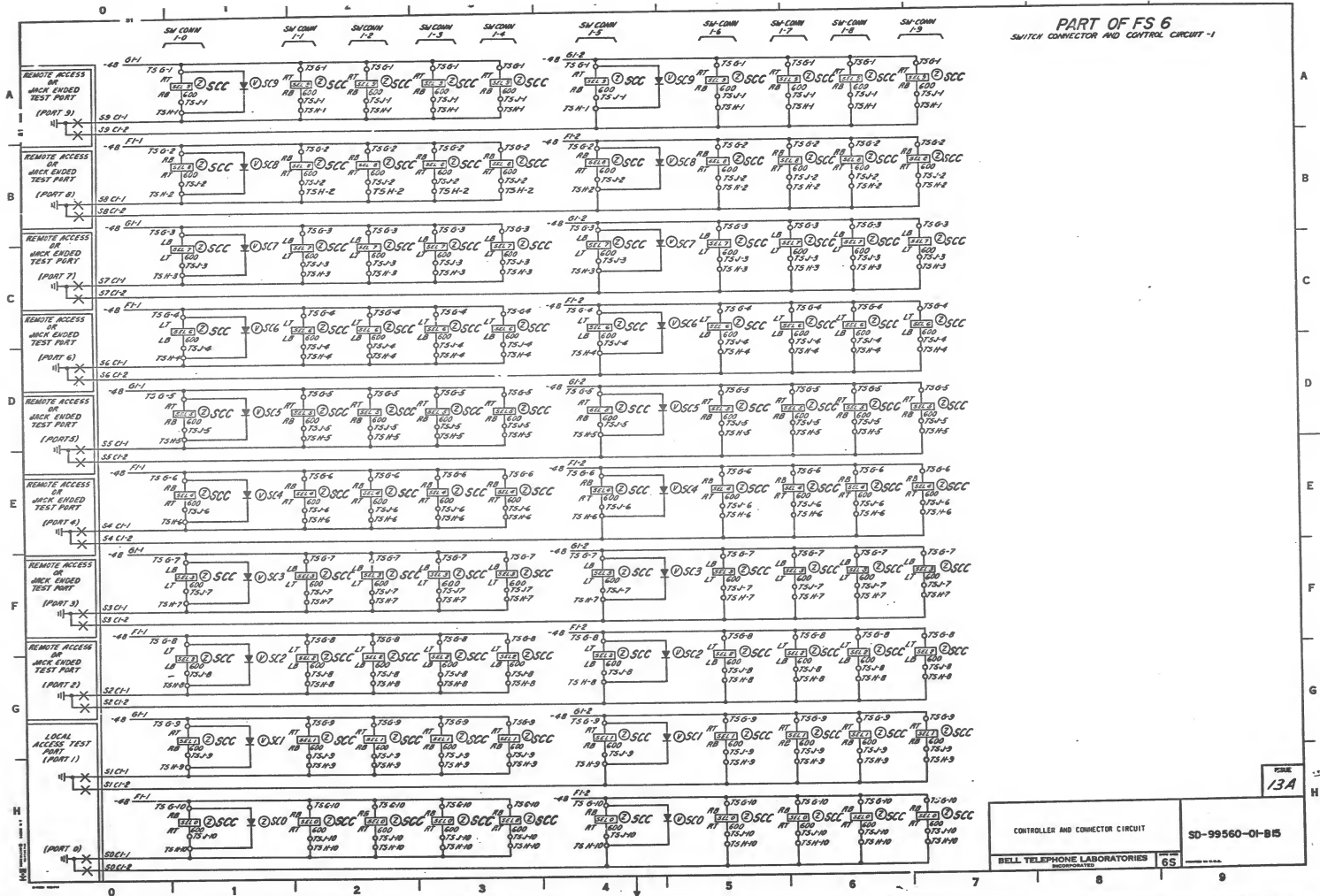


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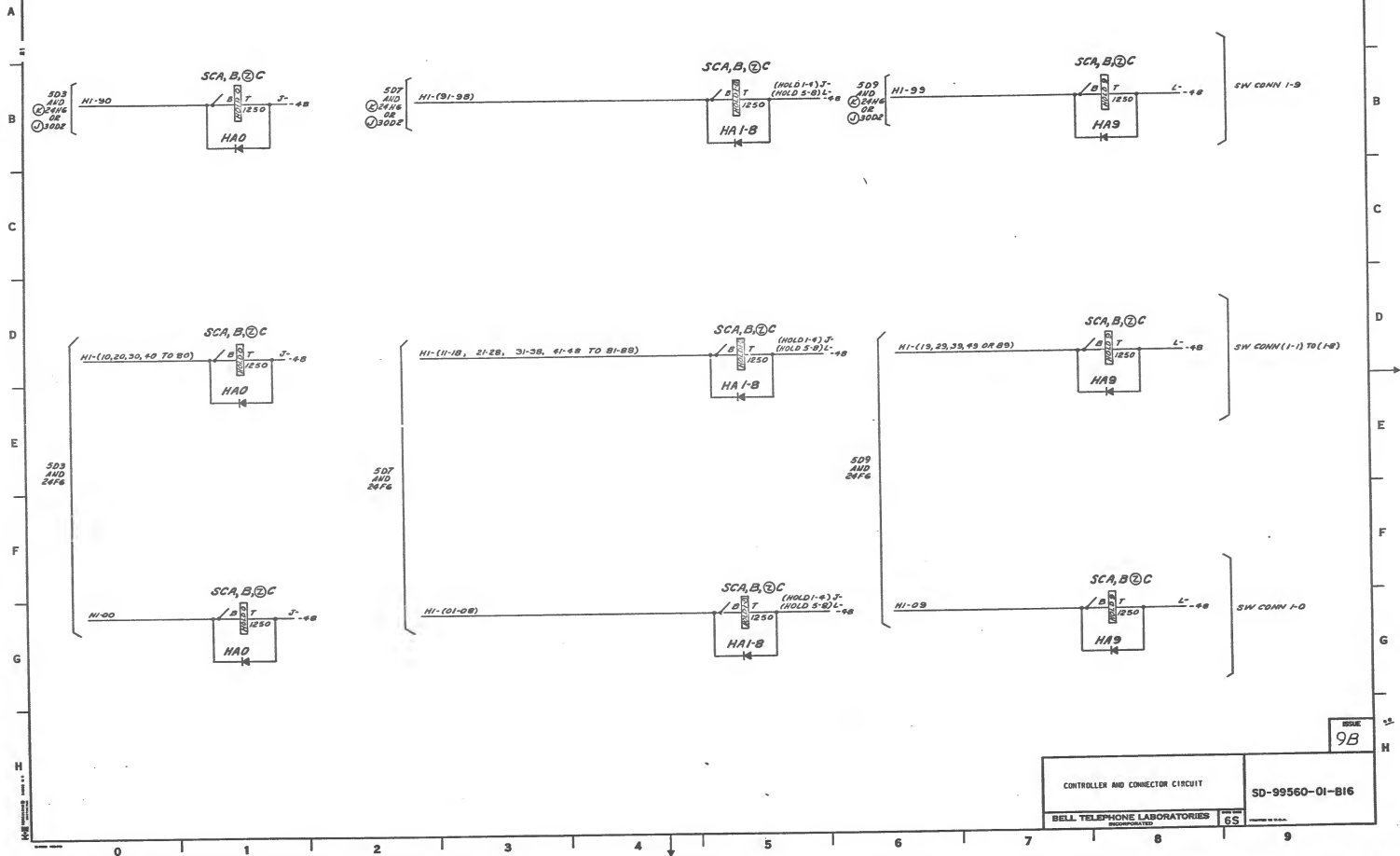
CONTROLLER AND CONNECTOR CIRCUIT
BELL TELEPHONE LABORATORIES

SD-99560-01-B4

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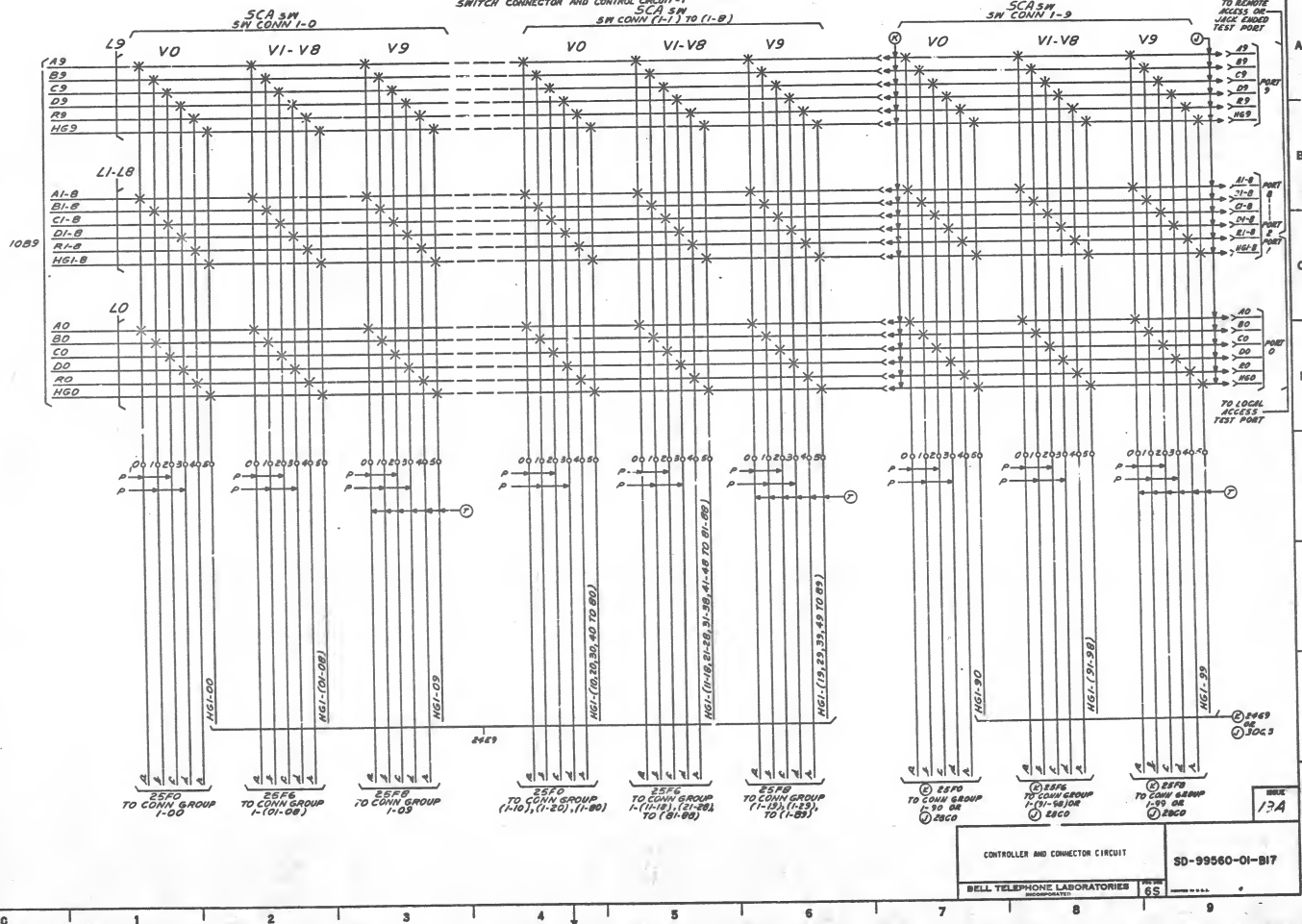
PART OF FS 6
SWITCH CONNECTOR AND CONTROL CIRCUIT-1



SD-99560-0-816

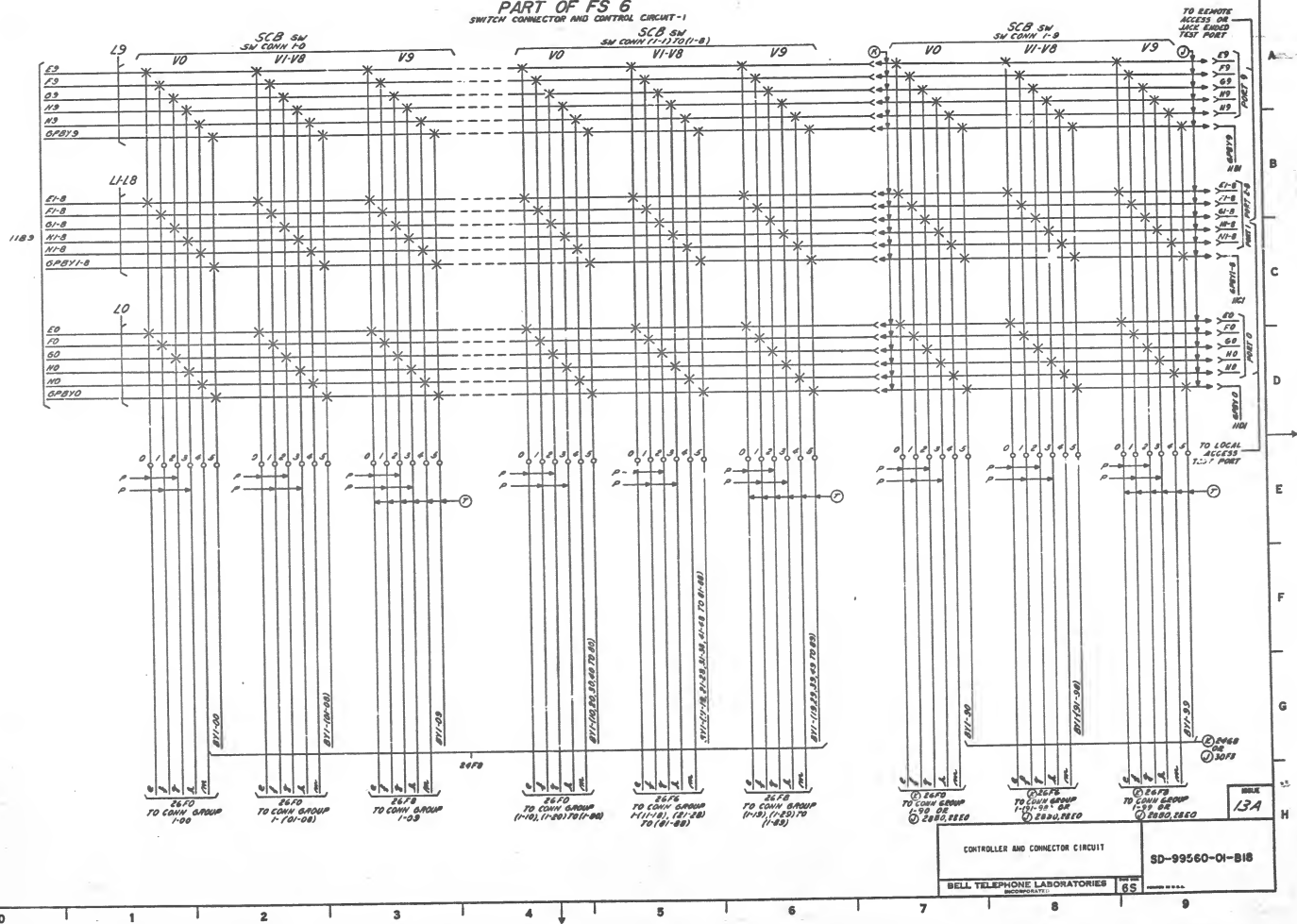
ISSUE
9B

PART OF FS 6
SWITCH CONNECTOR AND CONTROL CIRCUIT-1



SD-99560-01-B17

PART OF FS 6 SWITCH CONNECTOR AND CONTROL CIRCUIT-1



SWITCH CONNECTOR AND CONTROL CIRCUIT - 1



SD-99360-01-B19

BELL TELEPHONE LABORATORIES

SD-99560-01-819

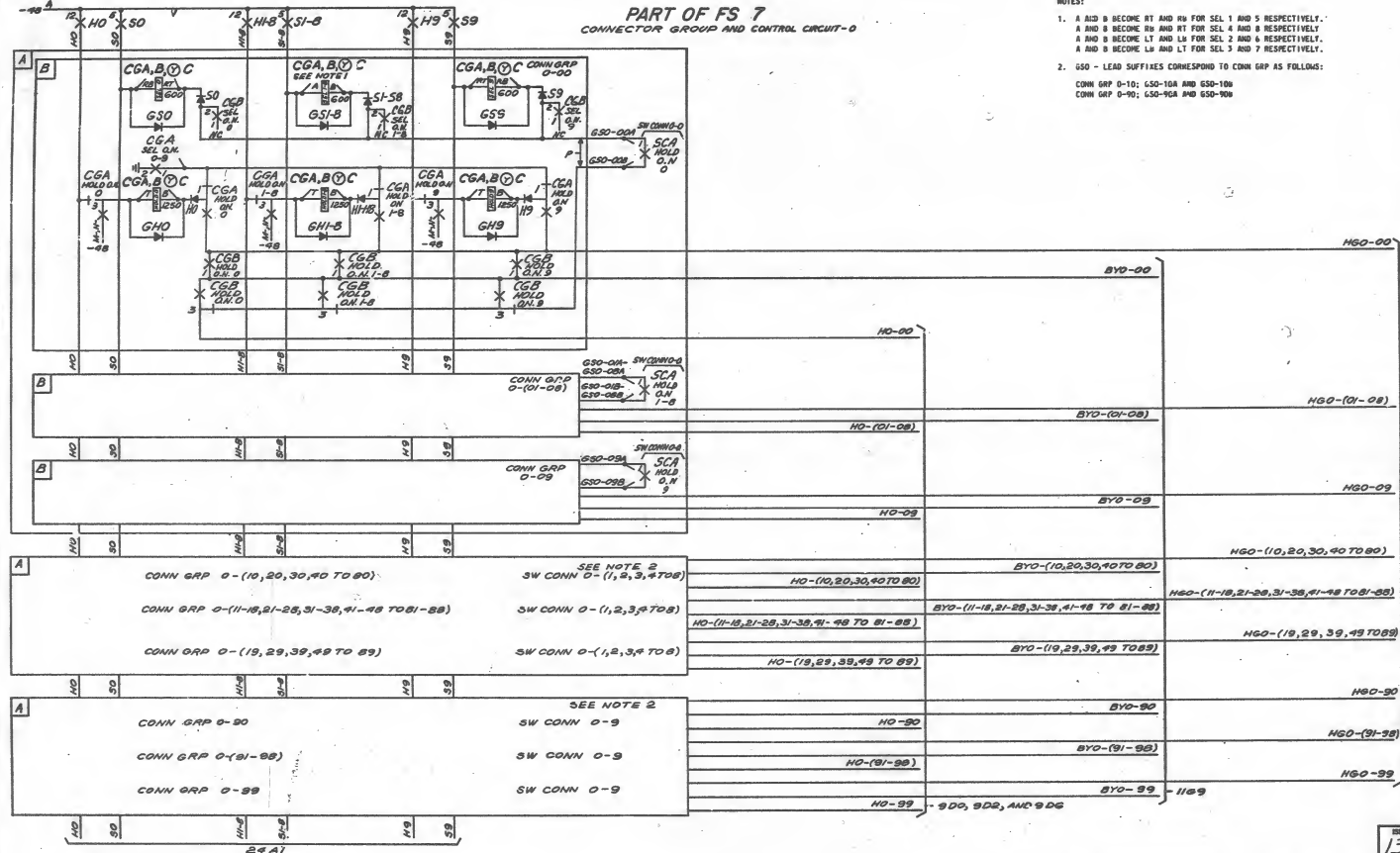
6S

PART OF FS 7 CONNECTOR GROUP AND CONTROL CIRCUIT-D

NOTES:

1. A AND B BECOME RT AND RH FOR SEL 1 AND 5 RESPECTIVELY.
A AND B BECOME RL AND RL FOR SEL 4 AND 8 RESPECTIVELY.
A AND B BECOME LT AND LA FOR SEL 2 AND 6 RESPECTIVELY.
A AND B BECOME LU AND LU FOR SEL 3 AND 7 RESPECTIVELY.
2. GSO - LEAD SUFFIXES CORRESPOND TO CONN GRP AS FOLLOWS:

CONN GRP 0-10; GSO-10A AND GSO-10B
CONN GRP 0-90; GSO-90A AND GSO-90B



SD-99560-01-820

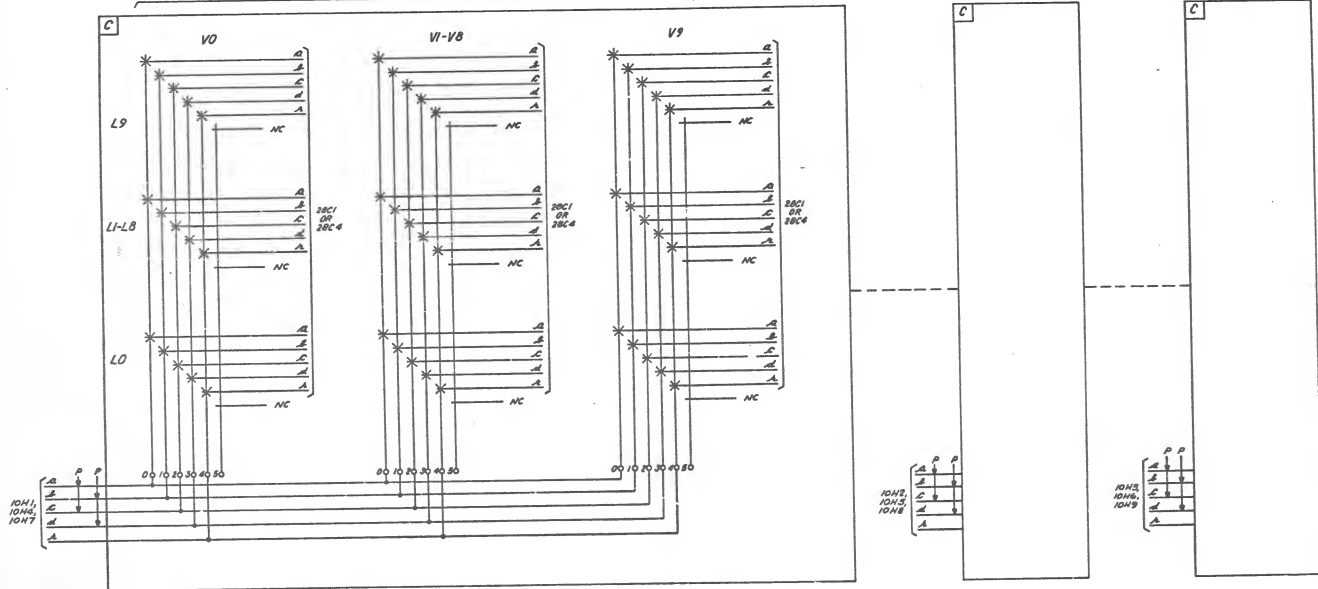
PART OF FS 7
CONNECTOR GROUP AND CONTROL CIRCUIT-0
 (SEE NOTE 1 PAGE B22)

CONN GROUPS 0-99 TO 0-99

CCA SW
 CONN GROUP (0-00), (0-10), (0-20) TO (0-90)

CCA SW
 CONN GROUP 0-(01-08), 0-(11-18),
 0-(21-28) TO 0-(91-98)

CCA SW
 CONN GROUP (0-9), (0-19),
 (0-29) TO (0-99)



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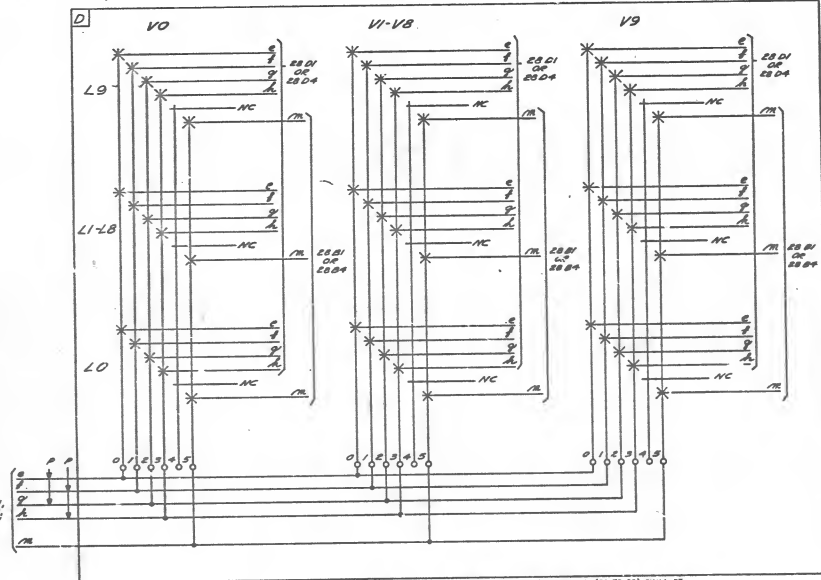
PART OF FS 7 CONNECTOR GROUP AND CONTROL CIRCUIT - C (SEE NOTE 1)

CONN GROUPS C-00 TO C-99

CGB SW
CONN GROUP C-00 (C-10) (C-20) TO C-90

CGB SW
CONN GROUP C-01 (C-10) (C-11) (C-12) TO C-99

CGB SW
CONN GROUP C-02 (C-10) (C-11) (C-12) TO C-99



NOTE 1 LEADS A (00 TO 99) THROUGH M (00 TO 99) SHALL BE CONNECTED TO RELAY CC (00 TO 99) OR CT (00 TO 99) AS FOLLOWS:

CGB, CGB AND CGB VERTICAL AND LEVEL	V0	V1	V2	V3	V4	V5	V6	V7	V8	V9
0	01	02	03	04	05	06	07	08	09	
1	10	11	12	13	14	15	16	17	18	19
2	20	21	22	23	24	25	26	27	28	29
3	30	31	32	33	34	35	36	37	38	39
4	40	41	42	43	44	45	46	47	48	49
5	50	51	52	53	54	55	56	57	58	59
6	60	61	62	63	64	65	66	67	68	69
7	70	71	72	73	74	75	76	77	78	79
8	80	81	82	83	84	85	86	87	88	89
9	90	91	92	93	94	95	96	97	98	99

LEADS A THROUGH P NUMERIC DESIGNATION AND CORRESPONDING CC OR CT RELAY DESIGNATION

CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES

SD-99560-01-B22

65

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SD-99560-01-B22

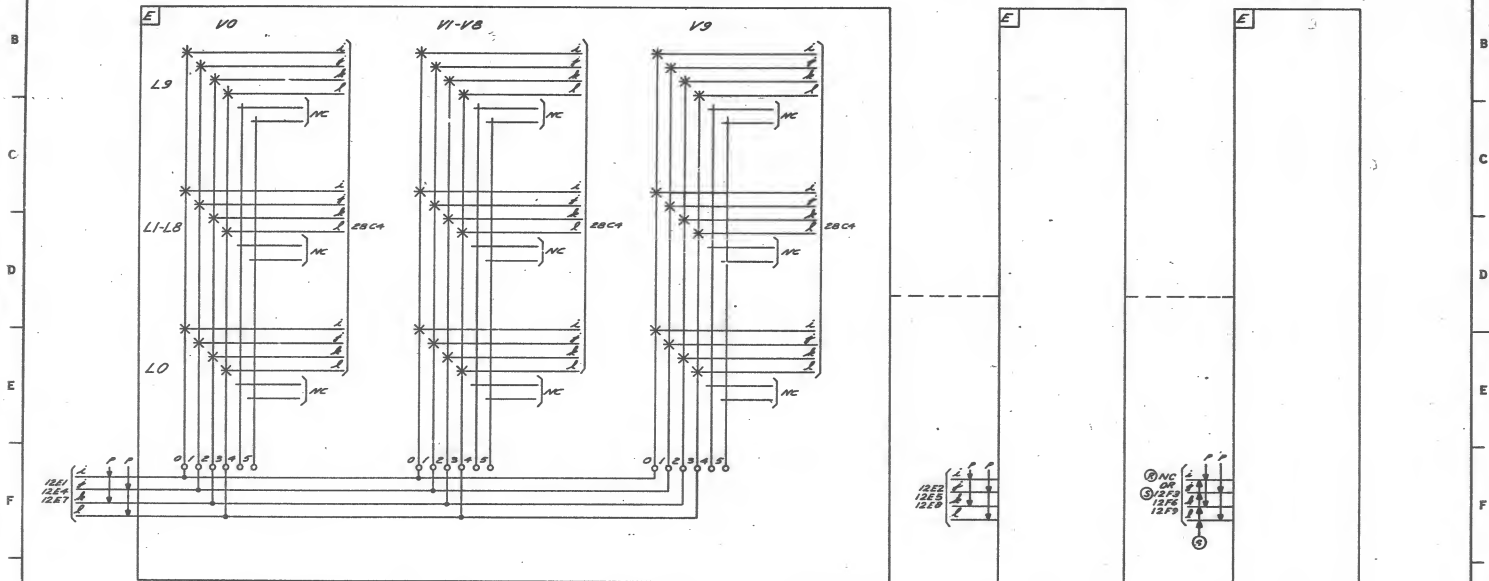
PART OF FS 7
CONNECTOR GROUP AND CONTROL CIRCUIT - B
(SEE NOTE 1 PAGE B22)

CARRY GROUPS 0-00 TO 0-99

① CGC SW
CARRY GROUP (0-00) (0-01) (0-20) (0-99)

① CGC SW
CARRY GROUP 0 (0-00) 0 (0-01),
0 (01-99) TO 0 (0-99)

① CGC SW
CARRY GROUP (0-0) (0-01),
(0-20) TO (0-99)



CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES
INCORPORATED

SD-99560-01-B23

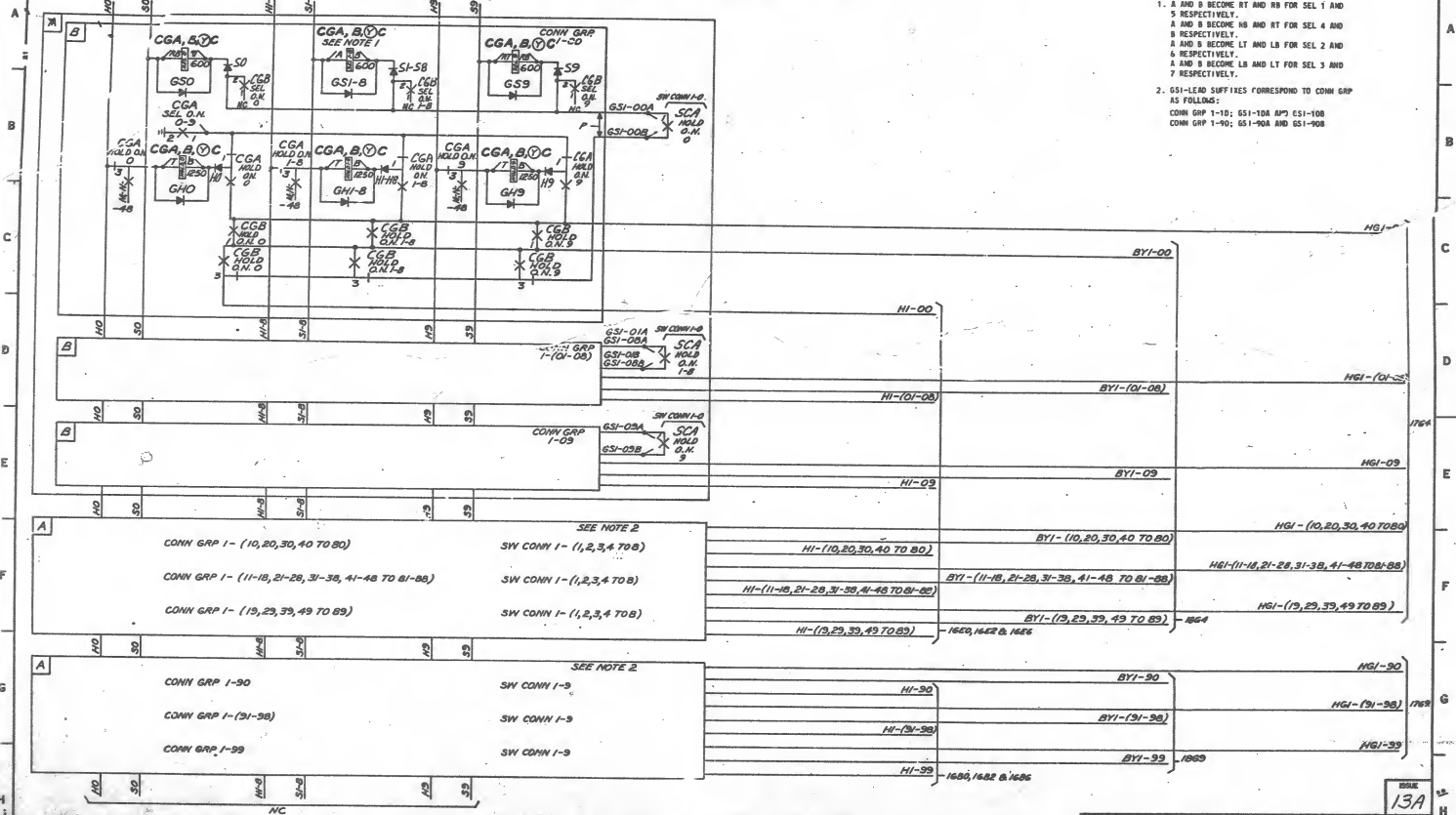
6S

13A

PART OF FS 8 CONNECTOR GROUP AND CONTROL CIRCUIT - 1

NOTES:

1. A AND B BECOME RT AND RB FOR SEL 1 AND 5 RESPECTIVELY.
A AND B BECOME HB AND HT FOR SEL 4 AND 8 RESPECTIVELY.
A AND B BECOME LT AND LB FOR SEL 2 AND 6 RESPECTIVELY.
A AND B BECOME LB AND LB FOR SEL 3 AND 7 RESPECTIVELY.
2. GSI-LEAD SUFFIXES CORRESPOND TO CONN GRP AS FOLLOWS:
CONN GRP 1-10; GSI-10A AND GSI-10B
CONN GRP 1-90; GSI-90A AND GSI-90B



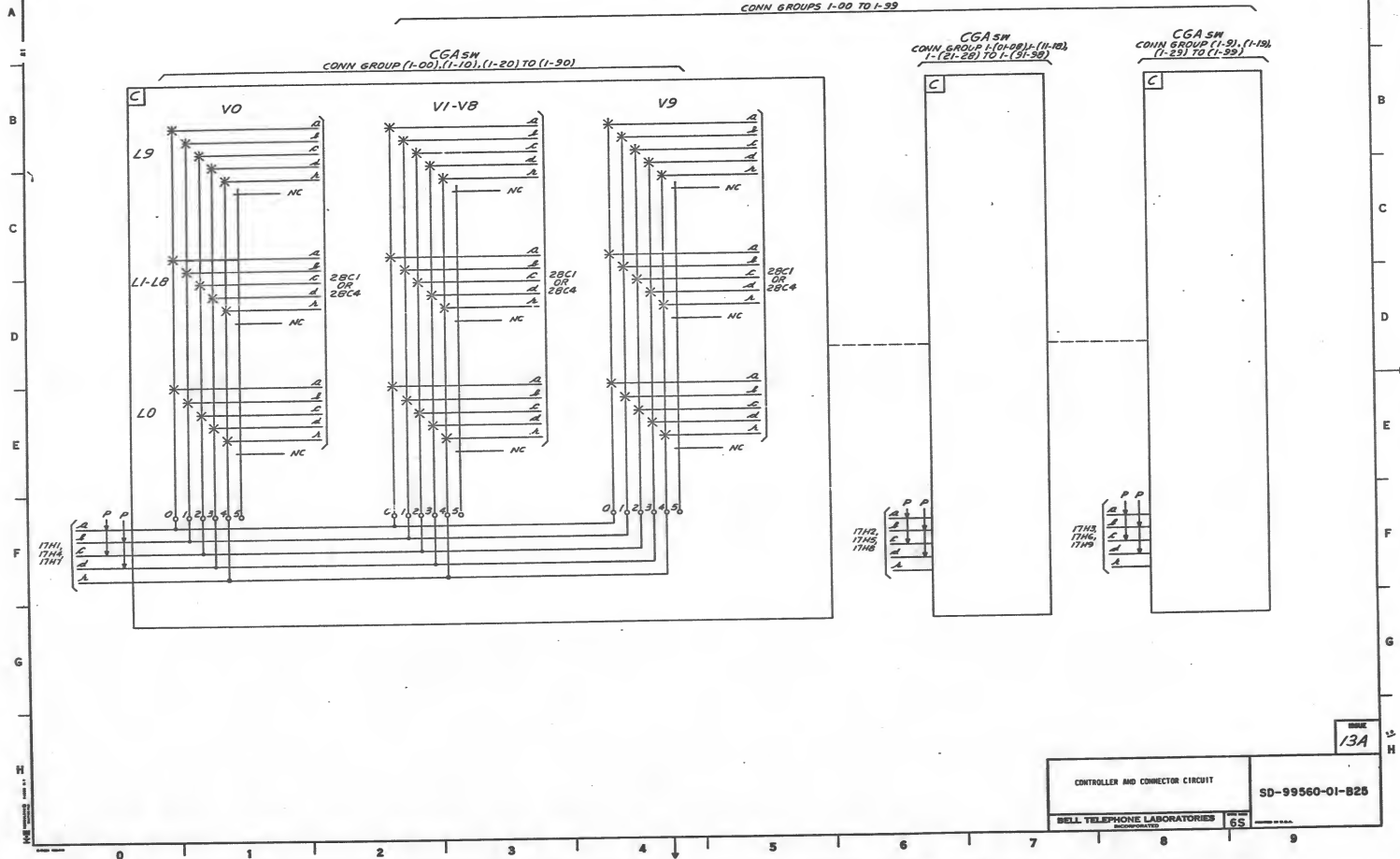
PART OF FS 8
CONNECTOR GROUP AND CONTROL CIRCUIT - I
(SEE NOTE 1 PAGE B22)

CONN GROUPS 1-20 TO 1-29

CGASW
CONN GROUP (1-00), (1-10), (1-20) TO (1-30)

CGASW
CONN GROUP 1 (01-08), (1-10), (1-18),
1 (21-28) TO 1 (31-38)

CGASW
CONN GROUP (1-19), (1-18),
(1-29) TO (1-39)



SD-99560-01-B25

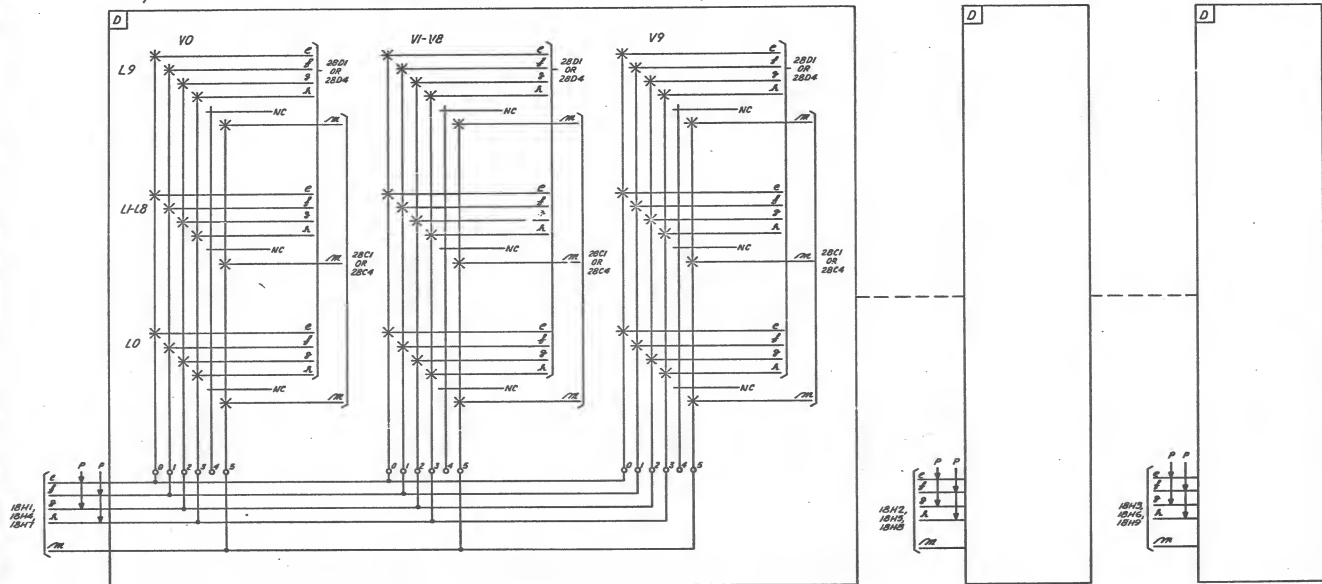
PART OF FS 8
CONNECTOR GROUP AND CONTROL CIRCUIT -1
(SEE NOTE 1 PAGE B22)

CONN GROUPS 1-00 TO 1-99

CGB SW
CONN GROUP (1-00)(1-01)(1-20) TO (1-90)

CGB SW
CONN GROUP 1-00(21-28), 1-01(29-36),
1-21(29-36) TO 1-91(98)

CGB SW
CONN GROUPS 0-93(1-19)
(1-29) TO (1-99)



SD-99560-01-826

13A

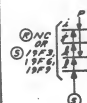
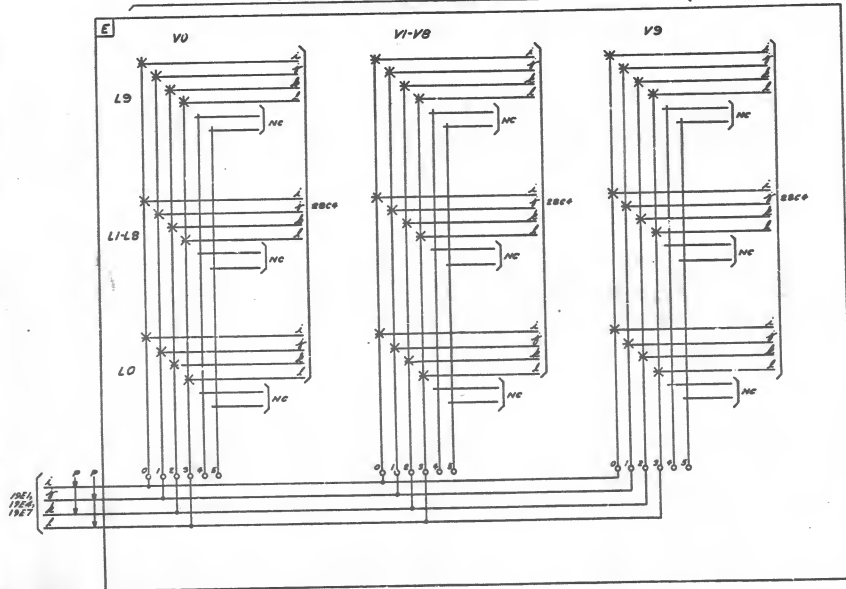
PART OF FS 8
CONNECTOR GROUP AND CONTROL CIRCUIT-1
(SEE NOTE 1 PAGE 622)

CONN GROUPS 1-99 TO 1-99

⑦ CGC SW
CONN GROUP (1-99), (1-10), (1-80) TO (1-99)

⑦ CGC SW
CONN GROUP (1-99), (1-10), (1-80)
1-21-22 TO 1-51-52

⑦ CGC SW
CONN GROUP (1-99), (1-10), (1-80)
1-21-22 TO 1-51-52



SD-99560-01-827

CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES

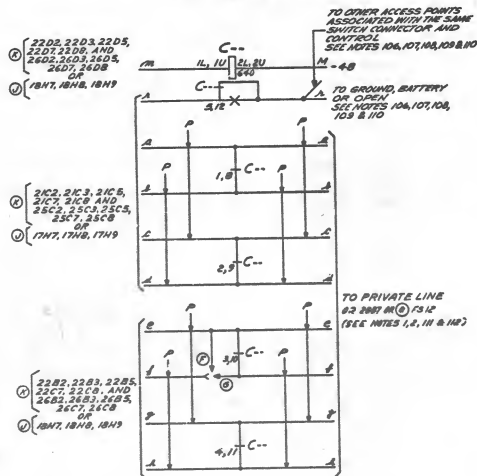
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SD-99560-01 827

ISSUE
134

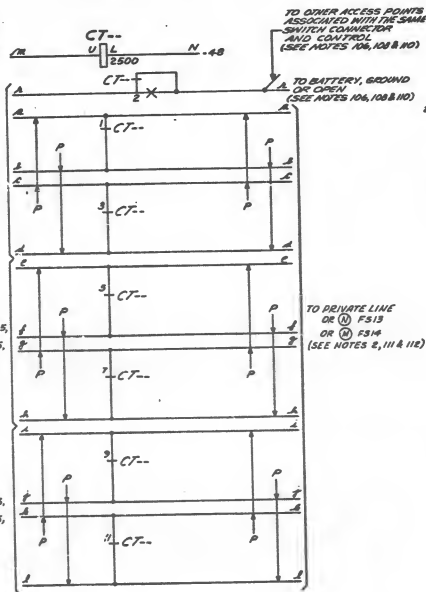
FS 9

TWO-2 WIRE OR ONE-4 WIRE
OR ONE-2 WIRE 6-4 WIRE NO
TEST CONNECTOR SEE TABLE A



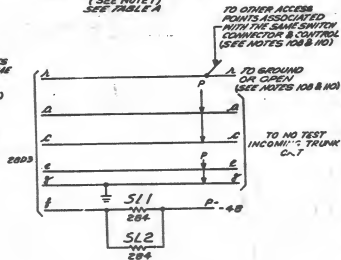
FS 10

ONE-6 WIRE
SEE TABLE B

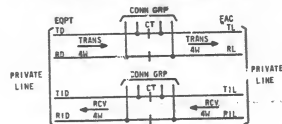


FS 11

NO TEST CONNECTOR ACCESS
(SEE NOTE 1)
SEE TABLE A



- NOTES:
1. IN ALL CONNECTOR GROUPS, OTHER THAN PHANTOM, ONLY RELAY (COO) MAY BE USED FOR Pth TEST ACCESS.
 2. THE REFERENCE DIRECTION FOR CONNECTING TRANSMISSION PAIRS OF 4 WIRE AND 6 WIRE CIRCUITS IS INDICATED BELOW:



3. IN TABLE B UNDER 6-WIRE, AND, THE AND LEADS ARE TESTED ONLY ON A LOCAL BASIS.

TABLE A
LEAD DESIG

DIST FR DESIG	TWO-2 WIRE	ONE-4 WIRE	ONE-2 WIRE PLUS EIN	NO TEST WIRING TRUNK
A TA TL	TA TL	TA TL	TA TL	T
B TA TL	TA TL	TA TL	TA TL	R
C RA RL	RA RL	RA RL	RA RL	S
D TB TD	TB TD	TB TD	TB TD	S
E TB TD	TB TD	TB TD	TB TD	R
F RB RD	RB RD	RB RD	RB RD	S
G VA VA	VA VA	VA VA	VA VA	VA

SEE NOTES 106-110

TABLE B
SEE NOTE 3
LEAD DESIG

DIST FR DESIG	6-WIRE
A TA TL	TA TL
B TA TL	TA TL
C RA RL	RA RL
D TB TD	TB TD
E TB TD	TB TD
F RB RD	RB RD
G VA VA	VA VA

SEE NOTES 106, 108 AND 110

CONTROLLER AND CONNECTOR CIRCUIT

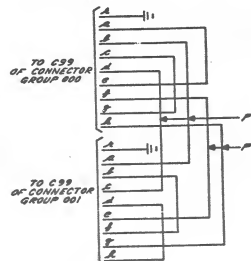
BELL TELEPHONE LABORATORIES

SD-99560-01-B28

13A

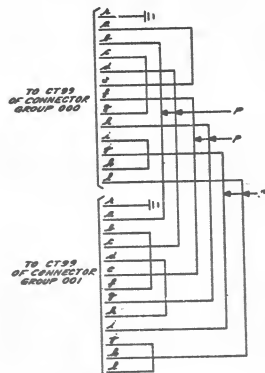
②FS 12

MAINTENANCE TEST CONNECTION
FOR 2-WIRE OR 4-WIRE OR 6-WIRE E & M
(SEE TABLE A, SH 828, NOTES 102, 111 & 112)



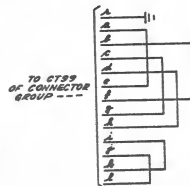
②FS 13

MAINTENANCE TEST CONNECTION
FOR 6-WIRE OR 8-WIRE E & M
(SEE TABLE C, SH 828, NOTES 102, 111 & 112)



②FS 14

MAINTENANCE TEST CONNECTION
6-WIRE
(SEE TABLE D, SH 828, NOTES 102, 111 & 112)



CONTROLLER AND CONNECTOR CIRCUIT

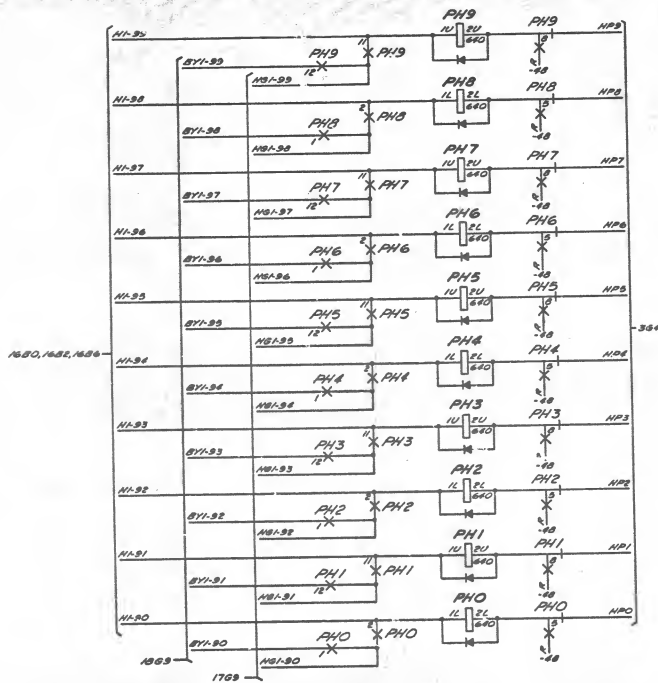
BELL TELEPHONE LABORATORIES
UNPUBLISHED

SD-99560-01-829

6S

ISSUE
84R

QFS 15
PHANTOM GROUP



CONTROLLER AND CONNECTOR CIRCUIT		DWG SIZE 65	ISSUE 9B
BELL LABORATORIES		SD-99560-01-	B30

REY DELAY DESIG	BSY										SPARE										ESQ										DS1										DS2										DS3										DS4										DESIG CODE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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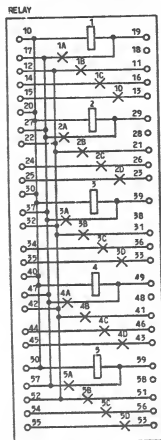
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RELAY	S4		S5		S6		S7		S8		S9		S10		S11		S12		S13		S14		S15		S16		S17		S18		S19		S20		S21		S22		S23		S24		S25		S26		S27		S28		S29		S30		S31		S32		S33		S34		S35		S36		S37		S38		S39		S40		S41		S42		S43		S44		S45		S46		S47		S48		S49		S50		S51		S52		S53		S54		S55		S56		S57		S58		S59		S60		S61		S62		S63		S64		S65		S66		S67		S68		S69		S70		S71		S72		S73		S74		S75		S76		S77		S78		S79		S80		S81		S82		S83		S84		S85		S86		S87		S88		S89		S90		S91		S92		S93		S94		S95		S96		S97		S98		S99		S100		S101		S102		S103		S104		S105		S106		S107		S108		S109		S110		S111		S112		S113		S114		S115		S116		S117		S118		S119		S120		S121		S122		S123		S124		S125		S126		S127		S128		S129		S130		S131		S132		S133		S134		S135		S136		S137		S138		S139		S140		S141		S142		S143		S144		S145		S146		S147		S148		S149		S150		S151		S152		S153		S154		S155		S156		S157		S158		S159		S160		S161		S162		S163		S164		S165		S166		S167		S168		S169		S170		S171		S172		S173		S174		S175		S176		S177		S178		S179		S180		S181		S182		S183		S184		S185		S186		S187		S188		S189		S190		S191		S192		S193		S194		S195		S196		S197		S198		S199		S200		S201		S202		S203		S204		S205		S206		S207		S208		S209		S210		S211		S212		S213		S214		S215		S216		S217		S218		S219		S220		S221		S222		S223		S224		S225		S226		S227		S228		S229		S230		S231		S232		S233		S234		S235		S236		S237		S238		S239		S240		S241		S242		S243		S244		S245		S246		S247		S248		S249		S250		S251		S252		S253		S254		S255		S256		S257		S258		S259		S260		S261		S262		S263		S264		S265		S266		S267		S268		S269		S270		S271		S272		S273		S274		S275		S276		S277		S278		S279		S280		S281		S282		S283		S284		S285		S286		S287		S288		S289		S290		S291		S292		S293		S294		S295		S296		S297		S298		S299		S300		S301		S302		S303		S304		S305		S306		S307		S308		S309		S310		S311		S312		S313		S314		S315		S316		S317		S318		S319		S320		S321		S322		S323		S324		S325		S326		S327		S328		S329		S330		S331		S332		S333		S334		S335		S336		S337		S338		S339		S340		S341		S342		S343		S344		S345		S346		S347		S348		S349		S350		S351		S352		S353		S354		S355		S356		S357		S358		S359		S360		S361		S362		S363		S364		S365		S366		S367		S368		S369		S370		S371		S372		S373		S374		S375		S376		S377		S378		S379		S380		S381		S382		S383		S384		S385		S386		S387		S388		S389		S390		S391		S392		S393		S394		S395		S396		S397		S398		S399		S400		S401		S402		S403		S404		S405		S406		S407		S408		S409		S410		S411		S412		S413		S414		S415		S416		S417		S418		S419		S420		S421		S422		S423		S424		S425		S426		S427		S428		S429		S430		S431		S432		S433		S434		S435		S436		S437		S438		S439		S440		S441		S442		S443		S444		S445		S446		S447		S448		S449		S450		S451		S452		S453		S454		S455		S456		S457		S458		S459		S460		S461		S462		S463		S464		S465		S466		S467		S468		S469		S470		S471		S472		S473		S474		S475		S476		S477		S478		S479		S480		S481		S482		S483		S484		S485		S486		S487		S488		S489		S490		S491		S492		S493		S494		S495		S496		S497		S498		S499		S500		S501		S502		S503		S504		S505		S506		S507		S508		S509		S510		S511		S512		S513		S514		S515		S516		S517		S518		S519		S520		S521		S522		S523		S524		S525		S526		S527		S528		S529		S530		S531		S532		S533		S534		S535		S536		S537		S538		S539		S540		S541		S542		S543		S544		S545		S546		S547		S548		S549		S550		S551		S552		S553		S554		S555		S556		S557		S558		S559		S560		S561		S562		S563		S564		S565		S566		S567		S568		S569		S570		S571		S572		S573		S574		S575		S576		S577		S578		S579		S580		S581		S582		S583		S584		S585		S586		S587		S588		S589		S590		S591		S592		S593		S594		S595		S596		S597		S598		S599		S600		S601		S602		S603		S604		S605		S606		S607		S608		S609		S610		S611		S612		S613		S614		S615		S616		S617		S618		S619		S620		S621		S622		S623		S624		S625		S626		S627		S628		S629		S630		S631		S632		S633		S634		S635		S636		S637		S638		S639		S640		S641		S642		S643		S644		S645		S646		S647		S648		S649		S650		S651		S652		S653		S654		S655		S656		S657		S658		S659		S660		S661		S662		S663		S664		S665		S666		S667		S668		S669		S670		S671		S672		S673		S674		S675		S676		S677		S678		S679		S680		S681		S682		S683		S684		S685		S686		S687		S688		S689		S690		S691		S692		S693		S694		S695		S696		S697		S698		S699		S700		S701		S702		S703		S704		S705		S706		S707		S708		S709		S710		S711		S712		S713		S714		S715		S716		S717		S718		S719		S720		S721		S722		S723		S724		S725		S726		S727		S728		S729		S730		S731		S732		S733		S734		S735		S736		S737		S738		S739		S740		S741		S742		S743		S744		S745		S746		S747		S748		S749		S750		S751		S752		S753		S754		S755		S756		S757		S758		S759		S760		S761		S762		S763		S764		S765		S766		S767		S768		S769		S770		S771		S772		S773		S774		S775		S776		S777		S778		S779		S780		S781		S782		S783		S784		S785		S786		S787		S788		S789		S790		S791		S792		S793		S794		S795		S796		S797		S798		S799		S800		S801		S802		S803		S804		S805		S806		S807		S808		S809		S810		S811		S812		S813		S814		S815		S816		S817		S818		S819		S820		S821		S822		S823		S824		S825		S826		S827		S828		S829		S830		S831		S832		S833		S834		S835		S836		S837		S838		S839		S840		S841		S842		S843		S844		S845		S846		S847		S848		S849		S850		S851		S852		S853		S854		S855		S856		S857		S858		S859		S860		S861		S862		S863		S864		S865		S866		S867		S868		S869		S870		S871		S872		S873		S874		S875		S876		S877		S878		S879		S880		S881		S882		S883		S884		S885		S886		S887		S888		S889		S890		S891		S892		S893		S894		S895		S896		S897		S898		S899		S900		S901		S902		S903		S904		S905		S906		S907		S908		S909		S910		S911		S912		S913		S914		S915		S916		S917		S918		S919		S920		S921		S922		S923		S924		S925		S926		S927		S928		S929		S930		S931		S932		S933		S934		S935		S936		S937		S938		S939		S940		S941		S942		S943		S944		S945		S946		S947		S948		S949		S950		S951		S952		S953		S954		S955		S956		S957		S958		S959		S960		S961		S962		S963		S964		S965		S966		S967		S968		S969		S970		S971		S972		S973		S974		S975		S976		S977		S978		S979		S980		S981		S982		S983		S984		S985		S986		S987		S988		S989		S990		S991		S992		S993		S994		S995		S996		S997		S998		S999		S1000		S1001		S1002		S1003		S1004		S1005		S1006		S1007		S1008		S1009		S1010		S1011		S1012		S1013		S1014		S1015		S1016		S1017		S1018		S1019		S1020		S1021		S1022		S1023		S1024		S1025		S1026		S1027		S1028		S1029		S1030		S1031		S1032		S1033		S1034		S1035		S1036		S1037		S1038		S1039	
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[illegible][illegible]

PART OF APP FIG. 1

RELAY	
DESIG	LOC
CODE	AUD2
OPTION	
CONT	LOC
24 M	319
25 M	319
22 M	319
21 M	319
20 M	319
19 M	319
18 M	319
17 M	319
16 M	319
15 M	319
14 M	319
13 M	319
12 M	319
11 M	319
10 M	319
9 M	319
8 M	319
7 M	319
6 M	319
5 M	319
4 M	319
3 M	319
2 M	319
1 M	319
CD IL	319



DESIG		TR								TRG			
CODE		3198								3198			
OPTION													
CD IL		1	2	3	4	5	6	7	8	9	10	11	12
CONT		1	2	3	4	5	6	7	8	9	10	11	12
POS		1	2	3	4	5	6	7	8	9	10	11	12
CD IL		1	2	3	4	5	6	7	8	9	10	11	12

PART OF APP. FIG. 1

BIODE			NETWORK		
DESIG	LOC	CORR	DESIG	LOC	CORR
DD1-DD9	181-181		BSF	149	
DD1-DD9	181-181		CSB	150	
DRG	300		CB1	281	
DRR	800		DSW1	186	
		THORR 533F			
SEL.DD-HOL.D9	200-208			106	
HOL.D-SEL.9	200-208		0102	103	
TYG(L,C,4,7)	460-HOL.4		0103	104	
TNG	406		0104	106	
			0109	106	
			HO-HB	200-	
				208	
			SO-SB	200-	
				208	

DESIG		CODE		HOLD MAG		HOLD D.N. CONTACTS									
CONT1		CA1		HOLD MAG		HOLD D.N. CONTACTS									
9	2C9	280				0	1	2	3	4	5	6	7	8	9
0	2C0	2C8				DESIG	0	1	2	3	4	5	6	7	8
7	2C7	2C6				COIL	250	201	202	203	204	205	206	207	208
6	2C6	2C7				COAT	1	250	201	202	203	204	205	206	207
5	2C5	2C5				HD.	5								
4	2C4	2C4					5								
3	2C3	2C4					4								
2	2C2	2C1					3								
1	2C1	2C1					2								
0	2C0	2C0					1								
							0								

SIGNALING RECEIVING CIRCUIT MULTIFREQUENCY PULSING

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DESIG          LOC          CODE
-              4B3
ED-2010B-1 1.41
S/EAL ASSEMBLY
E/N J99378-( )
L2. PLUG IN UNITS
CONSISTING OF:
1 J99377A-( ) L1 POWER SUPPLY AND INPUT TRANSF. UNIT
2 J99378B-( ) L1 VARIOLOSSER AND AGC AMPL. UNIT
3 J99379C-( ) L1 SP-W/ LOGIC UNIT
2 J99377D-( ) L1 CHANNEL DETECTOR UNIT
3 J99377E-( ) L1 CHANNEL RELAYS UNIT
1 1016A FILTER
1 1016B FILTER

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SD-99560-01-C3

CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES
INCORPORATED

SP-99560-01-C3

FIGURE
13A

[illegible]

SWITCH
DES16
CAT

SEL MAG
DES16
CAT

LOCATION
COIL SEL
O.H. COM

HOLD MAG
HOLD O.H. CONTACTS

CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES
INCORPORATED

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SD-99560-01-C4

9E

APP. FIG. 3

DIODE	LOC	CODE
DESIG		
6H0	20C0	
(8) 6H1-6H8	20C2	
6H9	20C5	
6S0	20B0	
(8) 6S1-6S8	20B2	
6S9	20B3	
6H0	20B1	
(8) 6H1-6H8	20B2	
6H9	20B3	
6S0	20B1	
(8) 6S1-6S8	20B2	
6S9	20B3	

SWITCH

DESIG	CODE
CGA	CA1

SEL MAG	LOCATION	SEL D.N. CONT	HOLD MAG	HOLD D.N. CONTACTS
1 2 3 4 5 6 7 8 9				
1	20A1	20B0		
2	20A2	20B0	DESIG	0 1 2 3 4 5 6 7 8 9
3	20A2	20B0	COIL	20B0 20B2 20B3 20B4 20B5 20B6 20B7 20B8 20B9
4	20A2	20B0	CONT	1 20B1 20B2 20B3 20B4 20B5 20B6 20B7 20B8 20B9
5	20A2	20B0	NO.	3 20B0 20B1 20B2 20B3 20B4 20B5 20B6 20B7 20B8 20B9
6	20A2	20B0		
7	20A2	20B0		
8	20A2	20B0		
9	20A2	20B0		
10	20A2	20B0		
11	20A2	20B0		
12	20A2	20B0		
13	20A2	20B0		
14	20A2	20B0		
15	20A2	20B0		
16	20A2	20B0		
17	20A2	20B0		
18	20A2	20B0		
19	20A2	20B0		
20	20A2	20B0		

APP. FIG. 4

RELAY	C - -
DESIG	CODE
OPTION	
12	EBH 28C2
11	EBH 28E2
10	EBH 28D2
9	EBH 28C2
8	EBH 28C2
7	EBH 28C2
6	EBH 28C2
5	EBH 28C2
4	EBH 28C2
3	EBH 28C2
2	EBH 28C2
1	EBH 28C2
COIL	28B2

SWITCH

DESIG	CODE
CGA	CA1

SEL MAG	LOCATION	SEL D.N. CONT	HOLD MAG	HOLD D.N. CONTACTS
1 2 3 4 5 6 7 8 9				
1	20A1	20B0		
2	20A2	20B0	DESIG	0 1 2 3 4 5 6 7 8 9
3	20A2	20B0	COIL	20B0 20B2 20B3 20B4 20B5 20B6 20B7 20B8 20B9
4	20A2	20B0	CONT	1 20B1 20B2 20B3 20B4 20B5 20B6 20B7 20B8 20B9
5	20A2	20B0	NO.	3 20B0 20B1 20B2 20B3 20B4 20B5 20B6 20B7 20B8 20B9
6	20A2	20B0		
7	20A2	20B0		
8	20A2	20B0		
9	20A2	20B0		
10	20A2	20B0		
11	20A2	20B0		
12	20A2	20B0		
13	20A2	20B0		
14	20A2	20B0		
15	20A2	20B0		
16	20A2	20B0		
17	20A2	20B0		
18	20A2	20B0		
19	20A2	20B0		
20	20A2	20B0		

APP. FIG. 5

RELAY	C - -
DESIG	CODE
OPTION	
12	EBH 28C2
11	EBH 28E2
10	EBH 28D2
9	EBH 28C2
8	EBH 28C2
7	EBH 28C2
6	EBH 28C2
5	EBH 28C2
4	EBH 28C2
3	EBH 28C2
2	EBH 28C2
1	EBH 28C2
COIL	28B2

SWITCH

DESIG	CODE
CGA	CA1

SEL MAG	LOCATION	SEL D.N. CONT	HOLD MAG	HOLD D.N. CONTACTS
1 2 3 4 5 6 7 8 9				
1	20A1	20B0		
2	20A2	20B0	DESIG	0 1 2 3 4 5 6 7 8 9
3	20A2	20B0	COIL	20B0 20B2 20B3 20B4 20B5 20B6 20B7 20B8 20B9
4	20A2	20B0	CONT	1 20B1 20B2 20B3 20B4 20B5 20B6 20B7 20B8 20B9
5	20A2	20B0	NO.	3 20B0 20B1 20B2 20B3 20B4 20B5 20B6 20B7 20B8 20B9
6	20A2	20B0		
7	20A2	20B0		
8	20A2	20B0		
9	20A2	20B0		
10	20A2	20B0		
11	20A2	20B0		
12	20A2	20B0		
13	20A2	20B0		
14	20A2	20B0		
15	20A2	20B0		
16	20A2	20B0		
17	20A2	20B0		
18	20A2	20B0		
19	20A2	20B0		
20	20A2	20B0		

APP. FIG. 6

RESISTOR	LOC	CODE
DESIG		
SL1	28C8	188F
SL2	28C8	188F

CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES

SD-99560-01-C5

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APP FIG. 7

RELAY

DES16	PH0	PH1	PH2	PH3	PH4	PH5	PH6	PH7	PH8	PH9
CODE	AK30		AK30		AK30		AK30		AK30	
OPTION	CON/	LOC	CON/	LOC	CON/	LOC	CON/	LOC	CON/	LOC
	ABR	ABR	ABR	ABR	ABR	ABR	ABR	ABR	ABR	ABR
12	X		X		X		X		X	
11		X		X		X		X		X
10		EBM		EBM		EBM		EBM		EBM
9		EBM		EBM		EBM		EBM		EBM
8		EBM		EBM		EBM		EBM		EBM
7		EBM		EBM		EBM		EBM		EBM
6		EBM		EBM		EBM		EBM		EBM
5	EBM	30S5		EBM	30S5		EBM	30S5		EBM
4	EBM			EBM			EBM			EBM
3	EBM			EBM			EBM			EBM
2	EBM	30S4		EBM	30S4		EBM	30S4		EBM
1	H	30S4		H	30S4		H	30S4		H
CD11	30S5	30S5		30S5	30S5		30S5	30S5		30S5

B100C

DES16
[10] PH0-PH9LOC
30(A-F)5CODE
533F

CONTROLLER AND CONNECTOR CIRCUIT

DAG SIZE
65ISSUE
9B

BELL LABORATORIES

SD-99560-01-

C6

CIRCUIT REQUIREMENTS																	
APPARATUS				MECH. REST				CIRCUIT PREPARATION				DIRECT CURRENT FLOW REST					REMARKS
DESIG	CODE	OPT	PAG.	BSP. FLS.	CONT. PRES.	AMB. TST.	BLOCK OR INSULATE	TEST CLIP DATA	CONN. BAT.	CONN. GND.	TEST SET PREP	TEST NOTE	TEST WIRE	TEST FOR	AFTER SOAK	TEST NA	
MAGNETS																	
HOLD CBA (0-9)	CA1	SH	3				10. N. (G00A-0) TO 11. N. (G00A-0)	1/MAG. TST.	B/MAG. TST.		1, 2		0	20	19		
SEL CBA (0-9)								SEE NOTE 4	SEE NOTE 3	MAG. TST.		1		0	52.5	50	
HOLD CCB (0-9)	CA1	SH	3				10. N. (G00A-0) TO 11. N. (G00A-0)	1/MAG. TST.	B/MAG. TST.		1, 2		0				
SEL CCB (0-9)								SEE NOTE 4	SEE NOTE 3	MAG. TST.		1		0			
HOLD CSC (0-9)	CA1	SH	Y 3				10. N. (G00A-0) TO 11. N. (G00A-0)	1/MAG. TST.	B/MAG. TST.		1, 2		0				
SEL CSC (0-9)								SEE NOTE 4	SEE NOTE 3	MAG. TST.		1		0			
HOLD CONT1 (0-9)	CA1	SH	1				10. N. (G00A-0) TO 11. N. (G00A-0)	1/MAG. TST.	B/MAG. TST.		2		0	20	19		
SEL CONT1 (0-9)							10. N. (G00A-0) TO 11. N. (G00A-0)	SEE NOTE 3			2		0	52.5	50		
HOLD SCA (0-9)	CA1	SH	R									5		20	19		
SEL SCA (0-9)												6		52.5	50		
HOLD SCB (0-9)	CA1	SH	R									5		-	-		
SEL SCB (0-9)												6		52.5	50		
HOLD SCC (0-9)	CA1	SH	2 R									5		-	-		
SEL SCC (0-9)												6		52.5	50		
RELAYS																	
RST	1/28K44		1	ROR			2 (00A)	1L (B57)	GRD		0		23.1	22	MTD WITH (SPARE)		
C---	1/28K44	A	222					10. REL. TST.		GRD		0		27.5	26	MTD WITH C--- EVEN	
EVEN	1/28K44	A	222					11. REL. TST.		GRD		0		27.5	26	MTD WITH C--- ODD	
C50	1/28K44	1	222				1 (C50)	1L (C50)	GRD		0		27.5	26	MTD WITH (C51)		
C51	1/28K44	1	222				1 (C51)	1L (C51)	GRD		0		27.5	26	MTD WITH (C50)		
CT---	A19	5	220					11. MAG. TST.		GRD		0					
D161	A12	1	220					11 (D161)		GRD		0		43	40.5		
D162	A12	1	220					11 (D162)		GRD		0		43	40.5		
D163	A12	1	220					11 (D163)		GRD		0		43	40.5		
D164	A12	1	220					11 (D164)		GRD		0		43	40.5		
D165	A12	1	220				5 (TN)	11 (D165)		GRD		0		43	40.5		
D01	1/28K44	1	222				(D01) B, 1 (D01)	1L (D01)		GRD		0		27.5	26	MTD WITH (D01)	
D02	1/28K44	1	222				(D02) B, 1 (D02)	1L (D02)		GRD		0		27.5	26	MTD WITH (D02)	
D03	1/28K44	1	222				(D03) B, 1 (D03)	1L (D03)		GRD		0		27.5	26	MTD WITH (D03)	
D04	1/28K44	1	222				(D04) B, 1 (D04)	1L (D04)		GRD		0		27.5	26	MTD WITH (D04)	

CIRCUIT REQUIREMENTS

APPARATUS				MECH. REST				CIRCUIT PREPARATION				DIRECT CURRENT FLOW REST				REMARKS
DESIG	CODE	OPT	PAG.	BSP. FLS.	CONT. PRES.	AMB. TST.	BLOCK OR INSULATE	TEST CLIP DATA	TEST SET PREP	TEST NOTE	TEST WIRE	TEST FOR	AFTER SOAK	TEST NA	REMARKS	
D05	1/28K44	1	222				(D05) B, 1 (D05)	1L (D05)	GRD	0		27.5	26	MTD WITH (D05)		
D01	1/28K44	1	222				21 (D01)	1L (D01)	GRD	0		27.5	26	MTD WITH (D01)		
D02	1/28K44	1	222				21 (D02)	1L (D02)	GRD	0		27.5	26	MTD WITH (D02)		
D03	1/28K44	1	222				21 (D03)	1L (D03)	GRD	0		27.5	26	MTD WITH (D03)		
D04	1/28K44	1	222				21 (D04)	1L (D04)	GRD	0		27.5	26	MTD WITH (D04)		
D05	1/28K44	1	222				21 (D05)	1L (D05)	GRD	0		27.5	26	MTD WITH (D05)		
D06	1/28K44	1	222				21 (D06)	1L (D06)	GRD	0		45	40.5			
D07	1/28K44	1	222				(D07) B, 1 (D07)	1L (D07)	GRD	0		27.5	26	MTD WITH (D07)		
H1	1/28K44	1	222				(H1) B, 1 (H1)	1L (H1)	GRD	0		27.5	26	MTD WITH (H1)		
H2	1/28K44	1	222				(H2) B, 1 (H2)	1L (H2)	GRD	0		27.5	26	MTD WITH (H2)		
H3	1/28K44	1	222				(H3) B, 1 (H3)	1L (H3)	GRD	0		27.5	26	MTD WITH (H3)		
H4	1/28K44	1	222				(H4) B, 1 (H4)	1L (H4)	GRD	0		27.5	26	MTD WITH (H4)		
H5	1/28K44	1	222				(H5) B, 1 (H5)	1L (H5)	GRD	0		27.5	26	MTD WITH (H5)		
H6	1/28K44	1	222				(H6) B, 1 (H6)	1L (H6)	GRD	0		27.5	26	MTD WITH (H6)		
H7	1/28K44	1	222				(H7) B, 1 (H7)	1L (H7)	GRD	0		27.5	26	MTD WITH (H7)		
H8	1/28K44	1	222				(H8) B, 1 (H8)	1L (H8)	GRD	0		27.5	26	MTD WITH (H8)		
H9	1/28K44	1	222				(H9) B, 1 (H9)	1L (H9)	GRD	0		27.5	26	MTD WITH (H9)		
REC	A45	1	220				11 (REC)	1L (REC)	GRD	0		13.3	12.6			
P00	1/28K44	1	222				1L (P00)	1L (P00)	BAT.	0		23.1	22	MTD WITH (P01)		
P01	1/28K44	1	222				1L (P01)	1L (P01)	BAT.	0		23.1	22	MTD WITH (P02)		
P02	1/28K44	1	222				1L (P02)	1L (P02)	BAT.	0		23.1	22	MTD WITH (P03)		
P03	1/28K44	1	222				1L (P03)	1L (P03)	BAT.	0		23.1	22	MTD WITH (P04)		
P04	1/28K44	1	222				1L (P04)	1L (P04)	BAT.	0		23.1	22	MTD WITH (P05)		
P05	1/28K44	1	222				1L (P05)	1L (P05)	BAT.	0		23.1	22	MTD WITH (P06)		
P06	1/28K44	1	222				1L (P06)	1L (P06)	BAT.	0		23.1	22	MTD WITH (P07)		
P07	1/28K44	1	222				1L (P07)	1L (P07)	BAT.	0		23.1	22	MTD WITH (P08)		
P08	1/28K44	1	222				1L (P08)	1L (P08)	BAT.	0		23.1	22	MTD WITH (P09)		
P09	1/28K44	1	222				1L (P09)	1L (P09)	BAT.	0		23.1	22	MTD WITH (P10)		
S0	1/28K44	1	222				(S0) B, 1 (S0)	1L (S0)	GRD	0		27.5	26	MTD WITH (S0)		
S1	1/28K44	1	222				(S1) B, 1 (S1)	1L (S1)	GRD	0		27.5	26	MTD WITH (S1)		
S2	1/28K44	1	222				(S2) B, 1 (S2)	1L (S2)	GRD	0		27.5	26	MTD WITH (S2)		
S3	1/28K44	1	222				(S3) B, 1 (S3)	1L (S3)	GRD	0		27.5	26	MTD WITH (S3)		
S4	1/28K44	1	222				(S4) B, 1 (S4)	1L (S4)	GRD	0		27.5	26	MTD WITH (S4)		
S5	1/28K44	1	222				(S5) B, 1 (S5)	1L (S5)	GRD	0		27.5	26	MTD WITH (S5)		
S6	1/28K44	1	222				(S6) B, 1 (S6)	1L (S6)	GRD	0		27.5	26	MTD WITH (S6)		
S7	1/28K44	1	222				(S7) B, 1 (S7)	1L (S7)	GRD	0		27.5	26	MTD WITH (S7)		

TEST NOTE:

1. FOR C04, C08 AND ① C0C MULTIPLY CURRENT READING IN TABLE UNDER C04 BY THE NUMBER OF MAGNETS IN PARALLEL TO OBTAIN COMBINATION READINGS.

2. EACH MAGNET IS TESTED INDIVIDUALLY AND ONLY THE D.N. CANNOT ASSOCIATED WITH THAT MAGNET NEED BE INSULATED.

5. FOR S04, S08 AND ② S0C MULTIPLY CURRENT INDICATED IN TABLE UNDER S04 BY THE NUMBER OF MAGNETS IN PARALLEL TO OBTAIN COMBINATION READINGS.

6. OPEN STRAPS ON ASSOCIATED TERMINALS TO ISOLATE SELECT MAGNETS.

	0	1	2	3	4	5	6	7	8	9
CON GRD	RT	RB	LB	LT	RT	RB	LB	LT	RT	RB

	0	1	2	3	4	5	6	7	8	9
CON BAT	RB	RT	LT	LB	RB	RT	LT	LB	RB	RT

CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES

65

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ISSUE
137

TEST NOTE:

1. FOR CBA, CCB AND CSC MULTIPLY CURRENT READING IN TABLE UNDER CBA BY THE NUMBER OF MAGNETS IN PARALLEL TO OBTAIN COMBINATION READINGS.

2. EACH MAGNET IS TESTED INDIVIDUALLY AND ONLY THE D.N. CONTACT ASSOCIATED WITH THAT MAGNET NEED BE INSULATED.

3. FOR SCA, SCB AND SCC MULTIPLY CURRENT INDICATED IN TABLE UNDER SCA BY THE NUMBER OF MAGNETS IN PARALLEL TO OBTAIN COMBINATION READINGS.

4. OPEN STRAPS ON ASSOCIATED TERMINALS TO ISOLATE SELECT MAGNETS.

CONN. RT	RT	LB	LT	RT	LB	LT	RT	LB
0	1	2	3	4	5	6	7	8

CONN. BAT	BAT	RT	LT	LB	RT	LT	LB	RT
0	1	2	3	4	5	6	7	8

CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES

SD-9956-01-F1

65

ISSUE 13.7

SD-9956-01-F1

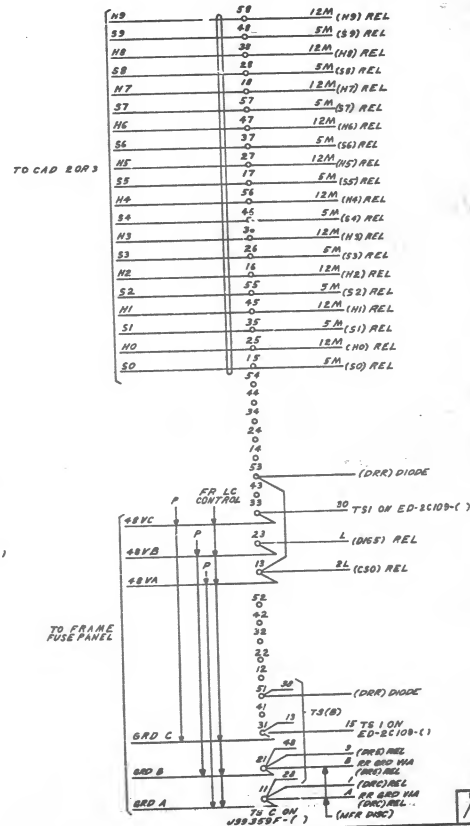
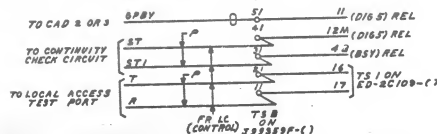
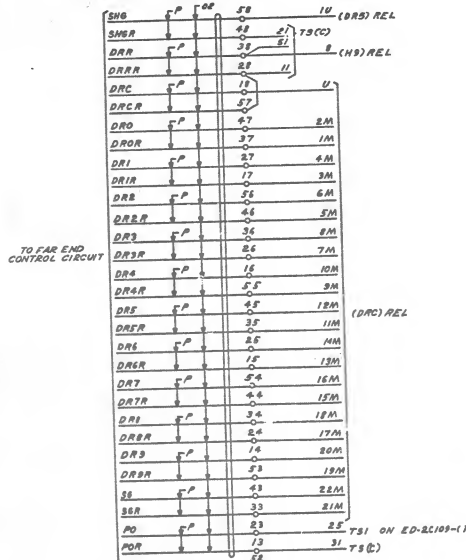
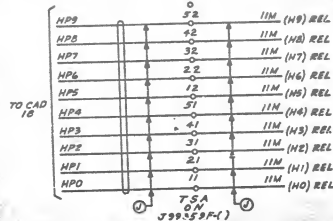
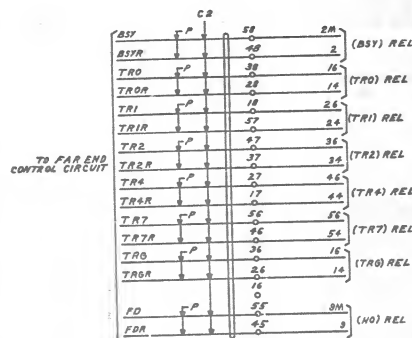
[illegible][illegible]

ISSUE
13A

SD-99560-01-F2

69

CAD 1
(FOR APP FIG. 1)
(FOR 11"6" FRAME ARRANGEMENT)



CONTROLLER AND CONNECTOR CIRCUIT

SD-99560-01-01

BELL TELEPHONE LABORATORIES

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PART OF CAD 1
(FOR APP T16.1)
(FOR 116 FRAME ARRANGEMENT)

FRAME LOCAL CABLE			FRAME LOCAL CABLE			FRAME LOCAL CABLE			FRAME LOCAL CABLE		
NO-99	99	0 L9,V9	NO-69	96	0 L9,V9	NI-99	99	5 L9,V9	NI-69	96	5 L9,V9
NO-98	98	0 L9,V8	NO-68	95	0 L9,V8	NI-98	98	5 L9,V8	NI-68	95	5 L9,V8
NO-97	97	0 L9,V7	NO-67	94	0 L9,V7	NI-97	97	5 L9,V7	NI-67	94	5 L9,V7
NO-96	96	0 L9,V6	NO-66	93	0 L9,V6	NI-96	96	5 L9,V6	NI-66	93	5 L9,V6
NO-95	95	0 L9,V5	NO-65	92	0 L9,V5	NI-95	95	5 L9,V5	NI-65	92	5 L9,V5
NO-94	94	0 L9,V4	NO-64	91	0 L9,V4	NI-94	94	5 L9,V4	NI-64	91	5 L9,V4
NO-93	93	0 L9,V3	NO-63	90	0 L9,V3	NI-93	93	5 L9,V3	NI-63	90	5 L9,V3
NO-92	92	0 L9,V2	NO-62	89	0 L9,V2	NI-92	92	5 L9,V2	NI-62	89	5 L9,V2
NO-91	91	0 L9,V1	NO-61	88	0 L9,V1	NI-91	91	5 L9,V1	NI-61	88	5 L9,V1
NO-90	90	0 L9,V0	NO-60	87	0 L9,V0	NI-90	90	5 L9,V0	NI-60	87	5 L9,V0
SW CONN 0-9			SW CONN 0-4			SW CONN 1-9			SW CONN 1-4		
NO-89	98	0 L9,V9	NO-39	93	0 L3,V9	NI-89	98	5 L9,V9	NI-39	93	5 L9,V9
NO-88	97	0 L9,V8	NO-38	92	0 L3,V8	NI-88	97	5 L9,V8	NI-38	92	5 L9,V8
NO-87	96	0 L9,V7	NO-37	91	0 L3,V7	NI-87	96	5 L9,V7	NI-37	91	5 L9,V7
NO-86	95	0 L9,V6	NO-36	90	0 L3,V6	NI-86	95	5 L9,V6	NI-36	90	5 L9,V6
NO-85	94	0 L9,V5	NO-35	89	0 L3,V5	NI-85	94	5 L9,V5	NI-35	89	5 L9,V5
NO-84	93	0 L9,V4	NO-34	88	0 L3,V4	NI-84	93	5 L9,V4	NI-34	88	5 L9,V4
NO-83	92	0 L9,V3	NO-33	87	0 L3,V3	NI-83	92	5 L9,V3	NI-33	87	5 L9,V3
NO-82	91	0 L9,V2	NO-32	86	0 L3,V2	NI-82	91	5 L9,V2	NI-32	86	5 L9,V2
NO-81	90	0 L9,V1	NO-31	85	0 L3,V1	NI-81	90	5 L9,V1	NI-31	85	5 L9,V1
NO-80	89	0 L9,V0	NO-30	84	0 L3,V0	NI-80	89	5 L9,V0	NI-30	84	5 L9,V0
SW CONN 0-8			SW CONN 0-3			SW CONN 1-8			SW CONN 1-3		
NO-79	97	0 L7,V9	NO-29	92	0 L2,V9	NI-79	97	5 L7,V9	NI-29	92	5 L2,V9
NO-78	96	0 L7,V8	NO-28	91	0 L2,V8	NI-78	96	5 L7,V8	NI-28	91	5 L2,V8
NO-77	95	0 L7,V7	NO-27	90	0 L2,V7	NI-77	95	5 L7,V7	NI-27	90	5 L2,V7
NO-76	94	0 L7,V6	NO-26	89	0 L2,V6	NI-76	94	5 L7,V6	NI-26	89	5 L2,V6
NO-75	93	0 L7,V5	NO-25	88	0 L2,V5	NI-75	93	5 L7,V5	NI-25	88	5 L2,V5
NO-74	92	0 L7,V4	NO-24	87	0 L2,V4	NI-74	92	5 L7,V4	NI-24	87	5 L2,V4
NO-73	91	0 L7,V3	NO-23	86	0 L2,V3	NI-73	91	5 L7,V3	NI-23	86	5 L2,V3
NO-72	90	0 L7,V2	NO-22	85	0 L2,V2	NI-72	90	5 L7,V2	NI-22	85	5 L2,V2
NO-71	89	0 L7,V1	NO-21	84	0 L2,V1	NI-71	89	5 L7,V1	NI-21	84	5 L2,V1
NO-70	88	0 L7,V0	NO-20	83	0 L2,V0	NI-70	88	5 L7,V0	NI-20	83	5 L2,V0
SW CONN 0-7			SW CONN 0-2			SW CONN 1-7			SW CONN 1-2		
NO-69	96	0 L6,V9	NO-19	91	0 L1,V9	NI-69	96	5 L6,V9	NI-19	91	5 L1,V9
NO-68	95	0 L6,V8	NO-18	90	0 L1,V8	NI-68	95	5 L6,V8	NI-18	90	5 L1,V8
NO-67	94	0 L6,V7	NO-17	89	0 L1,V7	NI-67	94	5 L6,V7	NI-17	89	5 L1,V7
NO-66	93	0 L6,V6	NO-16	88	0 L1,V6	NI-66	93	5 L6,V6	NI-16	88	5 L1,V6
NO-65	92	0 L6,V5	NO-15	87	0 L1,V5	NI-65	92	5 L6,V5	NI-15	87	5 L1,V5
NO-64	91	0 L6,V4	NO-14	86	0 L1,V4	NI-64	91	5 L6,V4	NI-14	86	5 L1,V4
NO-63	90	0 L6,V3	NO-13	85	0 L1,V3	NI-63	90	5 L6,V3	NI-13	85	5 L1,V3
NO-62	89	0 L6,V2	NO-12	84	0 L1,V2	NI-62	89	5 L6,V2	NI-12	84	5 L1,V2
NO-61	88	0 L6,V1	NO-11	83	0 L1,V1	NI-61	88	5 L6,V1	NI-11	83	5 L1,V1
NO-60	87	0 L6,V0	NO-10	82	0 L1,V0	NI-60	87	5 L6,V0	NI-10	82	5 L1,V0
SW CONN 0-6			SW CONN 0-1			SW CONN 1-6			SW CONN 1-1		
NO-59	95	0 L5,V9	NO-09	90	0 L0,V9	NI-59	95	5 L5,V9	NI-09	90	5 L0,V9
NO-58	94	0 L5,V8	NO-08	89	0 L0,V8	NI-58	94	5 L5,V8	NI-08	89	5 L0,V8
NO-57	93	0 L5,V7	NO-07	88	0 L0,V7	NI-57	93	5 L5,V7	NI-07	88	5 L0,V7
NO-56	92	0 L5,V6	NO-06	87	0 L0,V6	NI-56	92	5 L5,V6	NI-06	87	5 L0,V6
NO-55	91	0 L5,V5	NO-05	86	0 L0,V5	NI-55	91	5 L5,V5	NI-05	86	5 L0,V5
NO-54	90	0 L5,V4	NO-04	85	0 L0,V4	NI-54	90	5 L5,V4	NI-04	85	5 L0,V4
NO-53	89	0 L5,V3	NO-03	84	0 L0,V3	NI-53	89	5 L5,V3	NI-03	84	5 L0,V3
NO-52	88	0 L5,V2	NO-02	83	0 L0,V2	NI-52	88	5 L5,V2	NI-02	83	5 L0,V2
NO-51	87	0 L5,V1	NO-01	82	0 L0,V1	NI-51	87	5 L5,V1	NI-01	82	5 L0,V1
NO-50	86	0 L5,V0	NO-00	81	0 L0,V0	NI-50	86	5 L5,V0	NI-00	81	5 L0,V0
SW CONN 0-5			SW CONN 0-0			SW CONN 1-5			SW CONN 1-0		

TS AA-A
ON FB
J99559A-C

TS AA-B
ON FB
J99559A-C

CONTROLLER AND CONNECTOR CIRCUIT

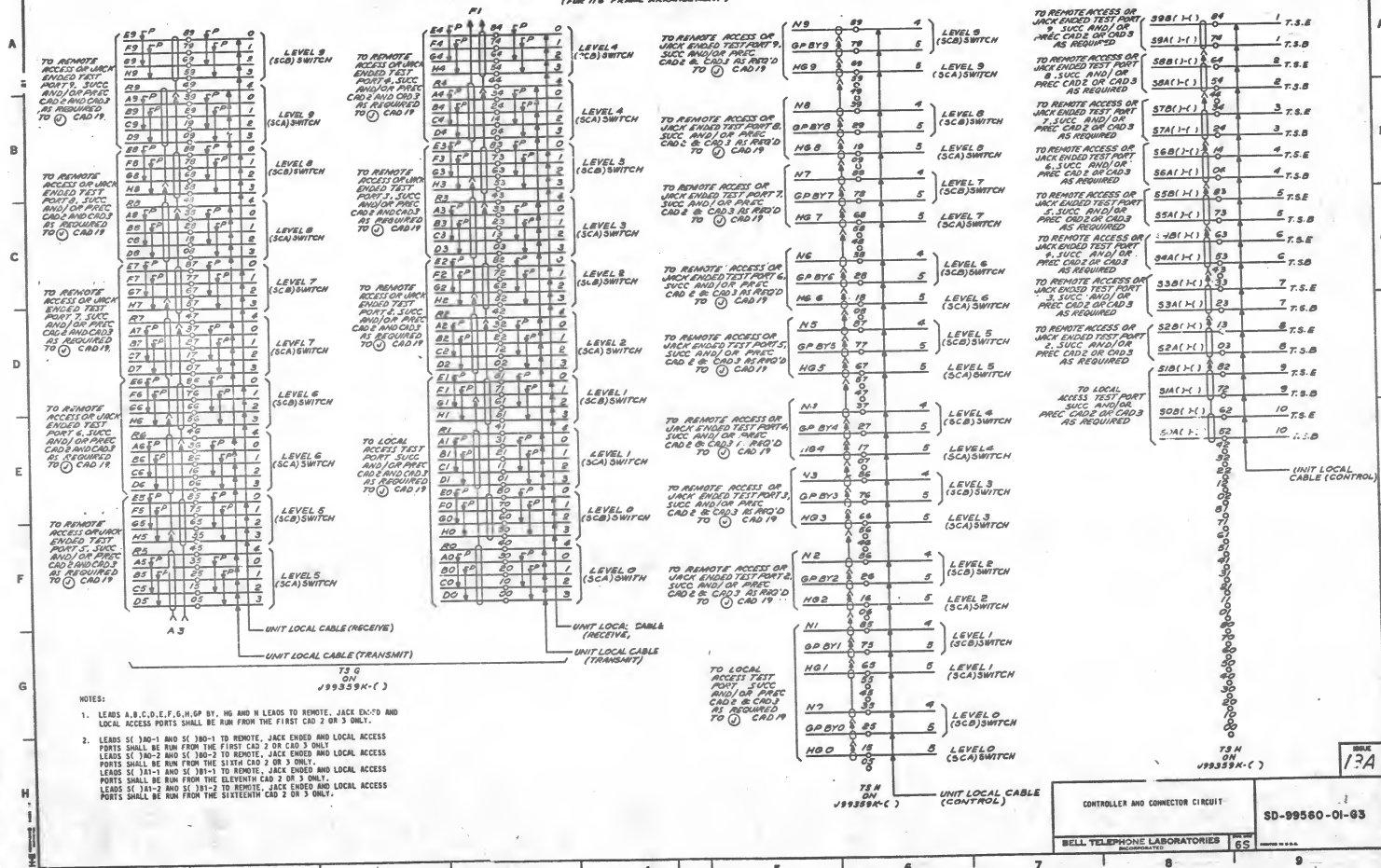
BELL TELEPHONE LABORATORIES

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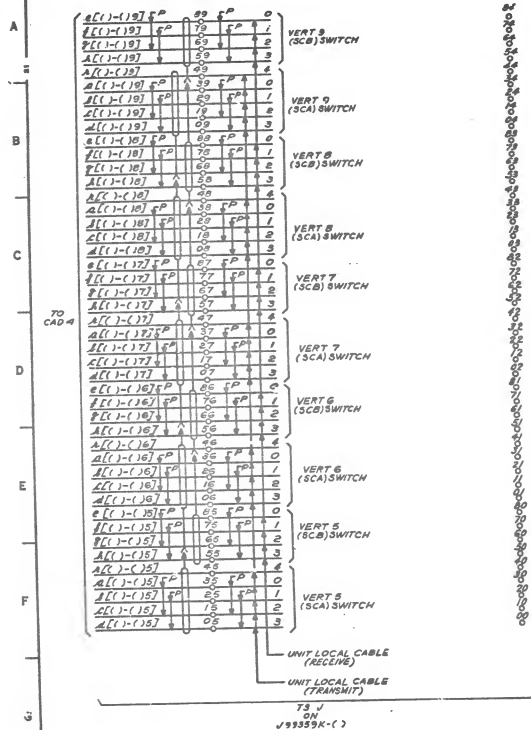
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PART OF CAD 2
(FOR APP FIG. 2)
(FOR 11 1/2" FRAME ARRANGEMENT)

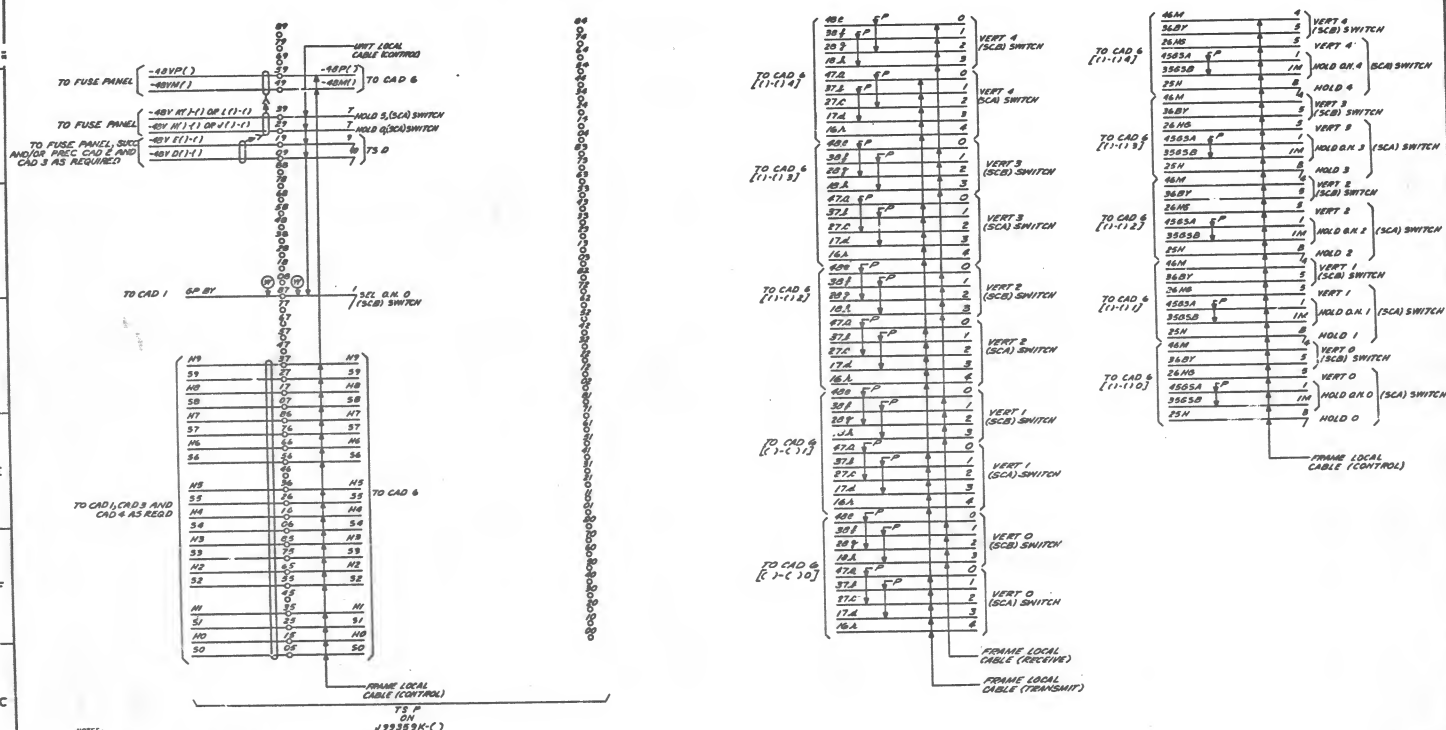


PART OF CAD 2
(FOR APP. FIG. 2)
(FOR 116" FRAME ARRANGEMENT)



0 1 2 3 4 5 6 7 8 9

PART OF CAD 2
(FOR APP FIG. 2)
(FOR 11"6" FRAME ARRANGEMENT)



NOTES:

- LEADS NO. 50 TO H9, 59 AND SPBY TO "AD 1" SHALL BE RUN FROM FIRST CAD 2 OR 3 ONLY.
- LEADS NO. 50 TO H9, 59 AND -48V () AND -48V (1) FROM CAD 2 TO CAD 3 SHALL BE RUN VIA ALL CAD 6 ON FRAME AND SHALL BE LOOPED AT ALL UNSWITCHED LOCATIONS.

SD-10-09560-05

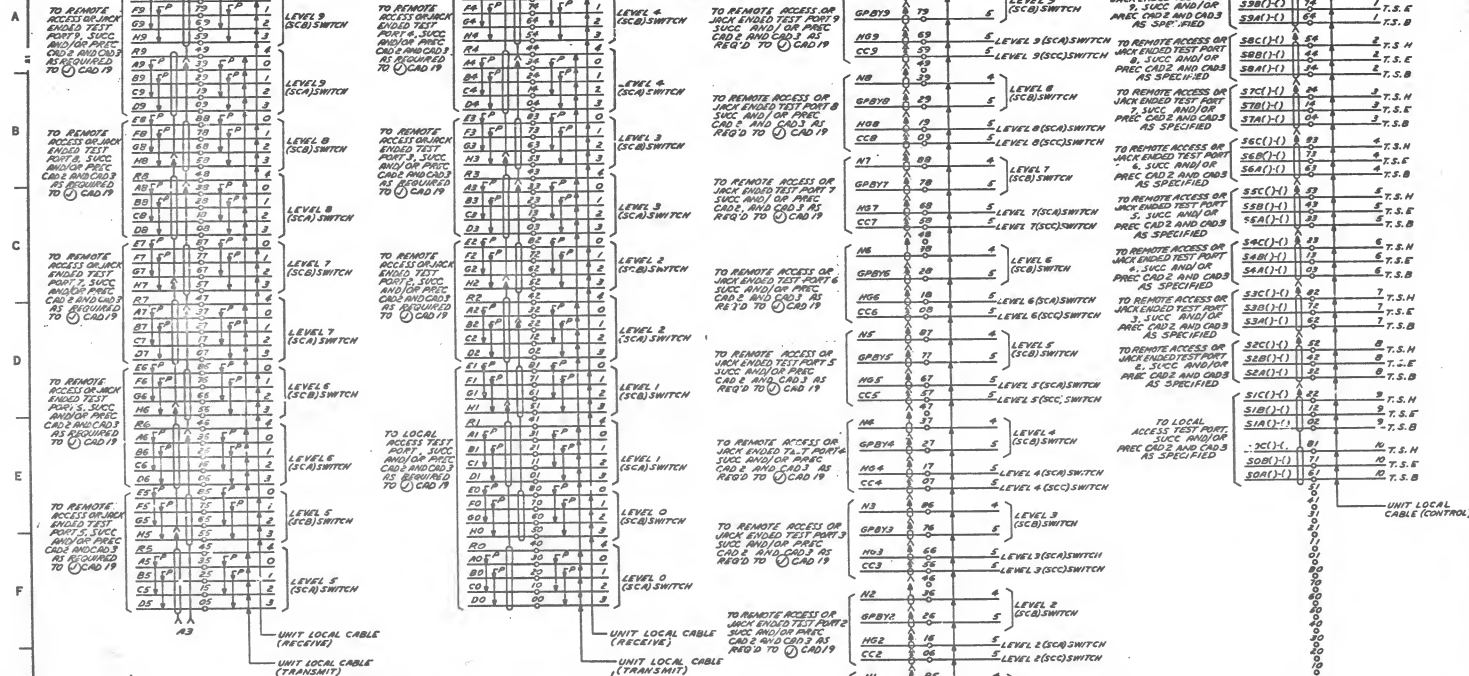
CONTROLLER AND CONNECTOR CIRCUIT		FIGURE 13A
BELL TELEPHONE LABORATORIES		SD-09560-01-05

PART OF CAD 3

(FOR APP FIG. 2)

② & ③ OPTION

(FOR 11" FRAME ARRANGMENT)



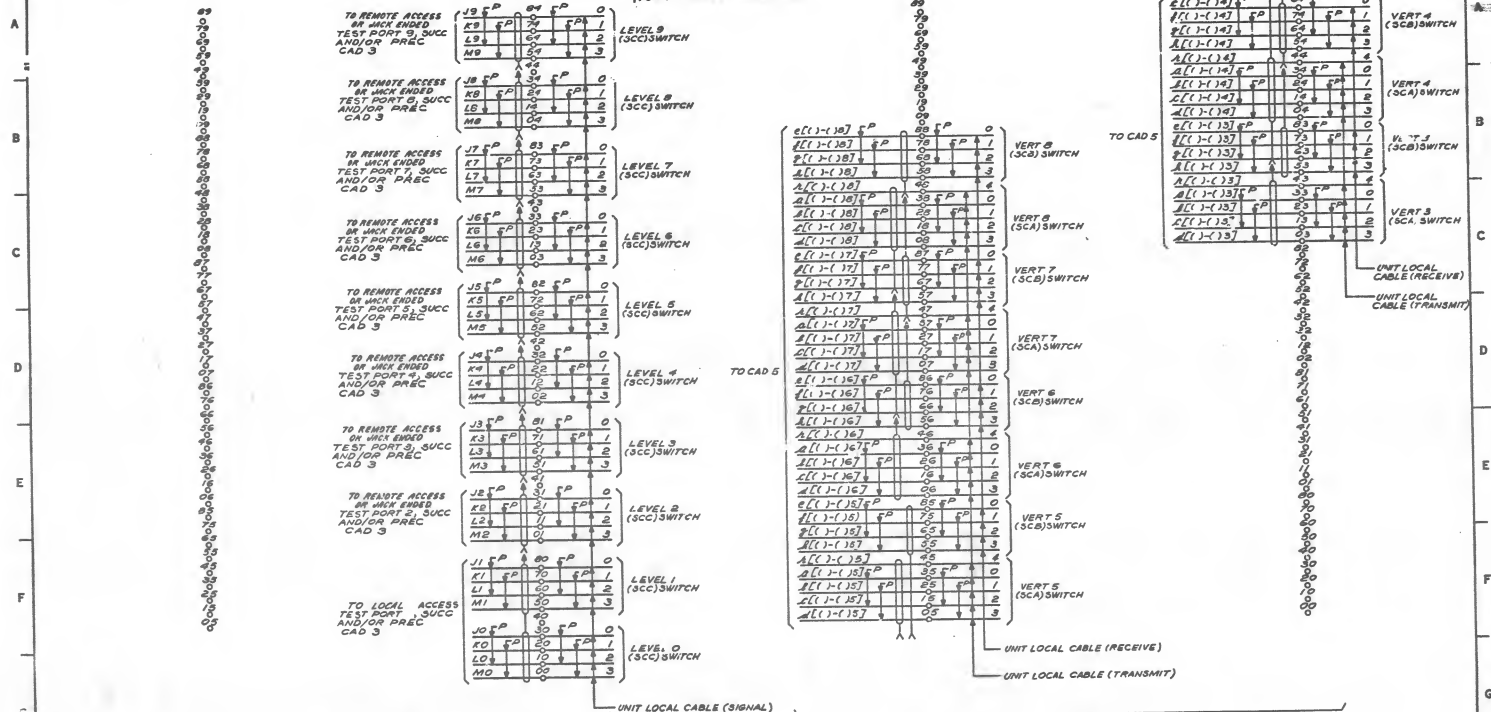
- NOTES:
- LEADS A,B,C,D,E,F,G,H,GR,NG, AND N TO REMOTE, JACK ENDED AND LOCAL ACCESS PORTS SHALL BE RUN FROM FIRST CAD 2 OR 3 ONLY. LEADS C,C-1,C-2, AND N TO RED-2. JACK ENDED AND LOCAL ACCESS PORTS SHALL BE RUN FROM FIRST CAD 3 ONLY.
 - LEADS 3 (10-1) AND 3 (10-1) TO REMOTE, JACK ENDED AND LOCAL ACCESS PORTS SHALL BE RUN FROM THE FIRST CAD 2 OR CAD 3 ONLY. LEADS 3 (10-1) AND 3 (10-1) TO REMOTE, JACK ENDED AND LOCAL ACCESS PORTS SHALL BE RUN FROM THE ELEVENTH CAD 2 OR CAD 3 ONLY. LEADS 3 (10-1) AND 3 (10-1) TO REMOTE, JACK ENDED AND LOCAL ACCESS PORTS SHALL BE RUN FROM THE SIXTEENTH CAD 2 OR CAD 3 ONLY. LEADS 3 (10-1) AND 3 (10-1) TO REMOTE, JACK ENDED AND LOCAL ACCESS PORTS SHALL BE RUN FROM FIRST, SIXTH, ELEVENTH AND SIXTEENTH CAD 3 ONLY RESPECTIVELY.

99-10-09566-03

J99359N-1

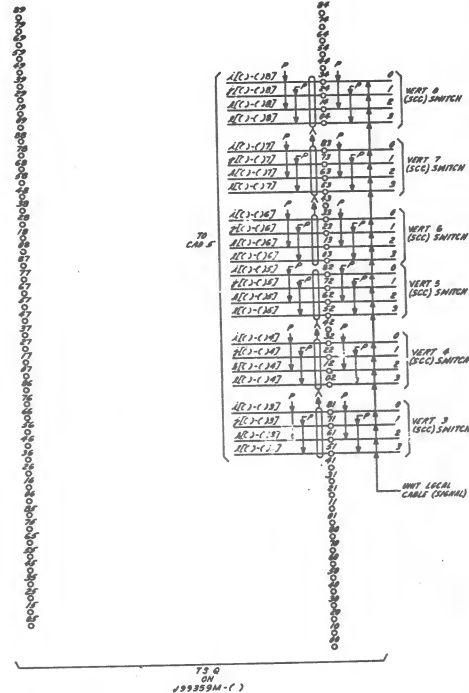
PART OF CAD 3

(FOR APP FIG. 2)
(2) & (2) OPTION
(FOR 11"6" FRAME ARRANGMENT)



SD-99560-01-67

(FOR 11" PP FIG. 2)
(R & Z) OPTION
(FOR 11" 6" FRAME ARRANGEMENT)

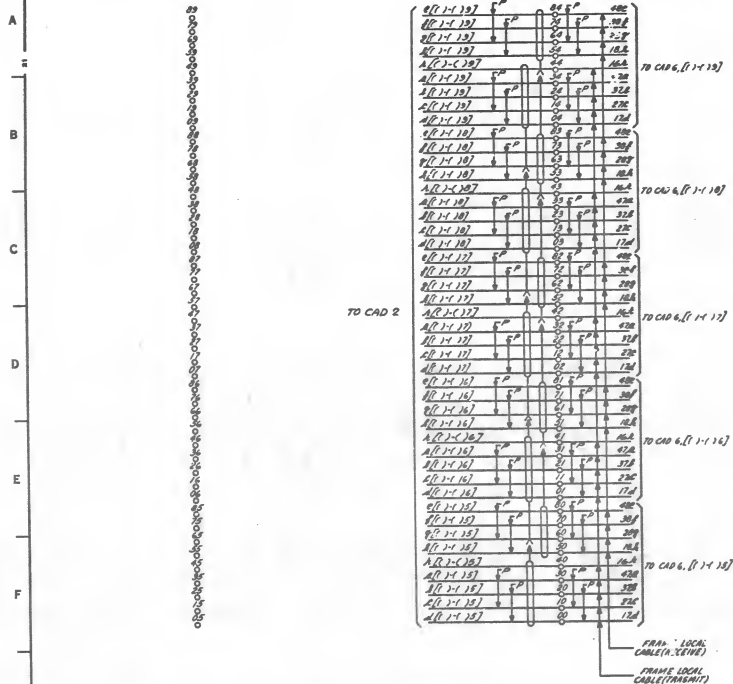


(R & Z) OPTION
(FOR 11'6" FRAME ARRANGEMENT)



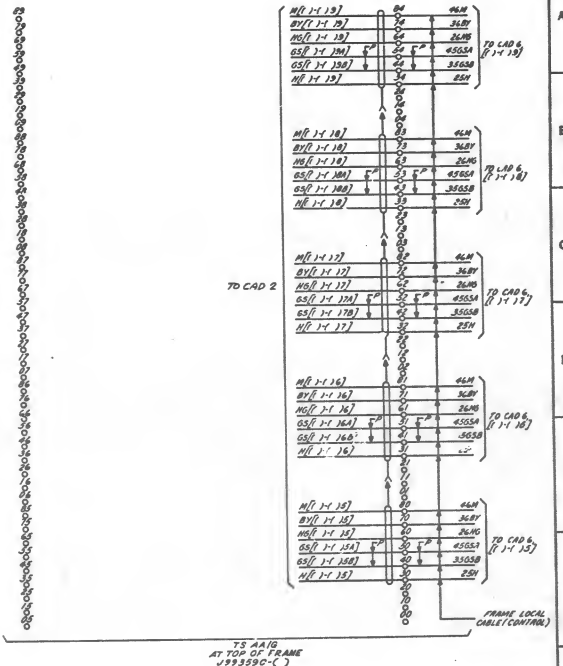
1. LEADS HQ,SD TO H9,S9 AND GP WY TO CAD1 SHALL BE RUN FROM FIRST CAD 2 OR 3 ONLY.
2. LEADS HQ,SD TO H9,S9 AND -48N() FROM CAD 3 TO CAD 7 SHALL BE RUN VIA ALL CAD 7 ON FRAME AND SHALL BE LOOPED AT ALL UNEQUIPPED POSITIONS.

PART OF CAD 4
(FOR APP FIG 2, 3, 4 AND 6)
(FOR 11'6" FRAME ARRANGEMENT)



TS A&B
AT TOP OF FRAME
J995590-C)

FRAN. LOCAL
CABLE (A-51716)
FRAME LOCAL
CABLE (TRANSIT)



TS A&B
AT TOP OF FRAME
J995590-C)

FRAME LOCAL
CABLE (CONTIN.)

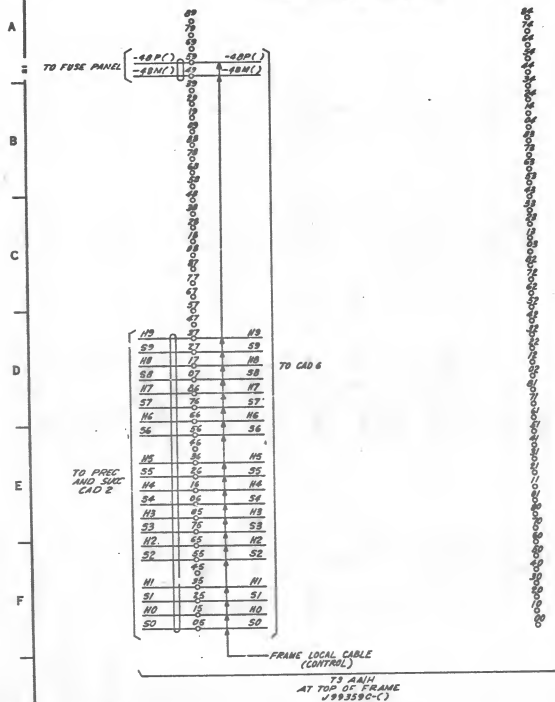
SD-99560-01-010

CONTROLLER AND CONNECTOR CIRCUIT	SD-99560-01-010
BELL TELEPHONE LABORATORIES	65

WIRE
13A

PART OF CAD 4
(FOR APP FIG. 3 & 6)
(FOR 11 1/2" FRAME ARRANGEMENT)

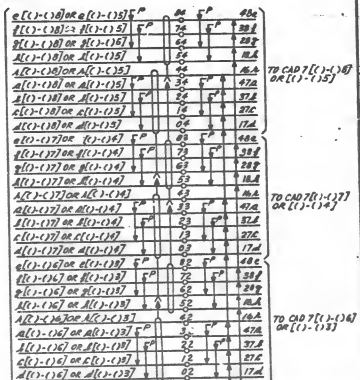
PART OF CAD 5
(FOR APP FIG. 3 OPTION, 3 OPTION AND APP FIG. 5)
(FOR 11 1/2" FRAME ARRANGEMENT)



NOTES:

1. LEADS H0, S0 TO H9, S9 AND -48M(1) AND -48P(1) FROM CAD 4 TO CAD 6 SHALL BE RUN VIA ALL CAD 6 ON FRAME AND SHALL BE LOOPED AT ALL UNEQUIPPED LOCATIONS.

TO CAD 3



TS 4A/H
AT TOP OF FRAME
J99359C-C)

FRAME LOCAL CABLE
(RECEIVE)
FRAME LOCAL CABLE
(TRANSMIT)

SD-9956-01-011

CONTROLLER AND CONNECTOR CIRCUIT

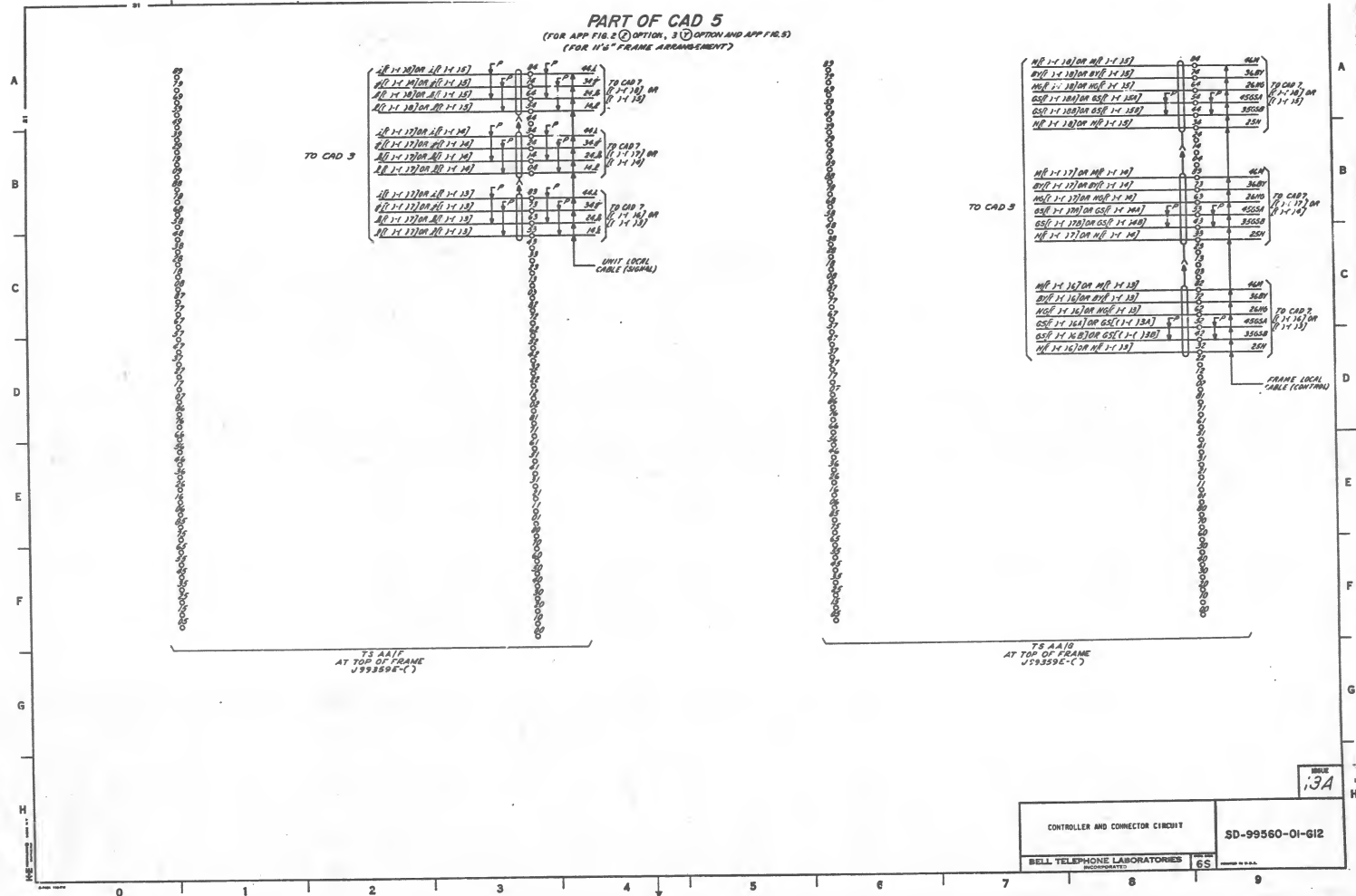
BELL TELEPHONE LABORATORIES

SD-9956-01-011

6S

13A

PART OF CAD 5
(FOR APP FIG. 2 ② OPTION, 3 ③ OPTION AND APP FIG. 5)
(FOR 11 1/2" FRAME ARRANGEMENT)



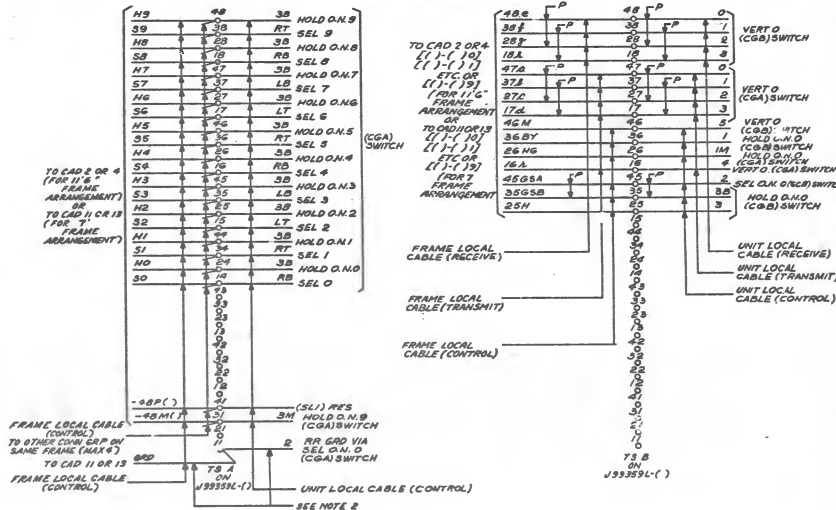
CONTROLLER AND CONNECTOR CIRCUIT		SD-99560-01-012
BELL TELEPHONE LABORATORIES (INCORPORATED)	65	

PART OF CAD 5
(FOR APP FIG. 2 ☒ OPTION, 3 ☒ OPTION AND APP FIG. 5)
(FOR 11'6" FRAME ARRANGEMENT)



1. LEADS H0,S0 TO H4,S4 AND -48N() FROM CAD 5 TO CAD 7 SHALL BE RUN VIA ALL CAD 7 ON FRAME AND SHALL BE LODGED AT ALL UNEQUIPPED LOCATIONS.
2. FOR T' FRAME ARRANGEMENT, THE SHOP OR INSTALLER SHALL CUT AND INSULATE THE LEAD THAT NORMALLY CONNECTS TO THE NO.8 FRAME GROUND LEAD AT ITS LAST APPEARANCE ON THE UNIT AND PROVIDE GROUND VIA CAD 11 OR 13.

(FOR APP FIG. 3, 4 AND 6)
(FOR 11'6" & 7' FRAME ARRANGEMENT)



- SEE NOTE 2

134

CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES

SD-99560-01-813

66

(FOR APP FIG. 3 (Y) OPTION AND APP FIG. 5,
(FOR 11'6" AND 7' FRAME ARRANGEMENT)



1. FRONT OF TERMINAL STRIP SHALL BE STAMPED WITH CONNECTOR GROUP AND CONTROL NUMBER AS WELL AS OTHER STAMPING NORMALLY PROVIDED.
2. FOR 7 FRAME ARRANGEMENT, THE SHOP OR INSTALLER SHALL CUT AND INSULATE THE LEAD THAT NORMALLY CONNECTS TO THE NO. 6 FRAME GROUND LEAD AT ITS LAST APPEARANCE ON THE UNIT AND PROVIDE GROUND VIA CAD 14.

(FOR APP FIG. 5)
SEE TABLE B AND NOTE 2 SHEET B28
(SEE SHEET NOTE)



1. FRONT OF TERMINAL STRIP SHALL BE STAMPED WITH CONNECTOR GROUP AND CONTROL NUMBER AS WELL AS OTHER STAMPING NORMALLY PROVIDED.

(FOR APP FIG. 1)
(FOR 7-FRAME ARRANGEMENT)

☒

FRAME LC
(CONTROL)

TS(B)
ON
199359F-(1)



FRAME LC —
(CONTROL)

TS(C)
ON
UJ9359F-(1)

CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES
INCORPORATED

65

SD-99360-01- 616

PART OF CAD 10
(FOR APP. FIG. 1)
(FOR 7' FRAME ARRANGEMENT)

SW CONN O-9		NO-88	99	SW CONN O-4		NO-68	94	SW CONN I-3		NI-59	90	SW CONN I-4		NI-42	94
		NO-87	98			NO-67	93			NI-58	89			NI-41	93
		NO-86	97			NO-66	92			NI-57	88			NI-40	92
		NO-85	96			NO-65	91			NI-56	87			NI-39	91
		NO-84	95			NO-64	90			NI-55	86			NI-38	90
		NO-83	94			NO-63	89			NI-54	85			NI-37	89
		NO-82	93			NO-62	88			NI-53	84			NI-36	88
		NO-81	92			NO-61	87			NI-52	83			NI-35	87
		NO-80	91			NO-60	86			NI-51	82			NI-34	86
		NO-79	90			NO-59	85			NI-50	81			NI-33	85
SW CONN O-8		NO-68	94	SW CONN O-3		NO-58	90	SW CONN I-8		NI-49	80	SW CONN I-3		NI-32	84
		NO-67	93			NO-57	89			NI-48	79			NI-31	83
		NO-66	92			NO-56	88			NI-47	78			NI-30	82
		NO-65	91			NO-55	87			NI-46	77			NI-29	81
		NO-64	90			NO-54	86			NI-45	76			NI-28	80
		NO-63	89			NO-53	85			NI-44	75			NI-27	79
		NO-62	88			NO-52	84			NI-43	74			NI-26	78
		NO-61	87			NO-51	83			NI-42	73			NI-25	77
		NO-60	86			NO-50	82			NI-41	72			NI-24	76
		NO-59	85			NO-49	81			NI-40	71			NI-23	75
SW CONN O-7		NO-78	97	SW CONN O-2		NO-48	80	SW CONN I-7		NI-39	70	SW CONN I-2		NI-22	74
		NO-77	96			NO-47	79			NI-38	69			NI-21	73
		NO-76	95			NO-46	78			NI-37	68			NI-20	72
		NO-75	94			NO-45	77			NI-36	67			NI-19	71
		NO-74	93			NO-44	76			NI-35	66			NI-18	70
		NO-73	92			NO-43	75			NI-34	65			NI-17	69
		NO-72	91			NO-42	74			NI-33	64			NI-16	68
		NO-71	90			NO-41	73			NI-32	63			NI-15	67
		NO-70	89			NO-40	72			NI-31	62			NI-14	66
		NO-69	88			NO-39	71			NI-30	61			NI-13	65
SW CONN O-6		NO-68	86	SW CONN O-1		NO-38	70	SW CONN I-6		NI-29	60	SW CONN I-1		NI-12	64
		NO-67	85			NO-37	69			NI-28	59			NI-11	63
		NO-66	84			NO-36	68			NI-27	58			NI-10	62
		NO-65	83			NO-35	67			NI-26	57			NI-09	61
		NO-64	82			NO-34	66			NI-25	56			NI-08	60
		NO-63	81			NO-33	65			NI-24	55			NI-07	59
		NO-62	80			NO-32	64			NI-23	54			NI-06	58
		NO-61	79			NO-31	63			NI-22	53			NI-05	57
		NO-60	78			NO-30	62			NI-21	52			NI-04	56
		NO-59	77			NO-29	61			NI-20	51			NI-03	55
SW CONN O-5		NO-58	76	SW CONN O-0		NO-28	60	SW CONN I-5		NI-19	50	SW CONN I-0		NI-02	54
		NO-57	75			NO-27	59			NI-18	49			NI-01	53
		NO-56	74			NO-26	58			NI-17	48			NI-00	52
		NO-55	73			NO-25	57			NI-16	47				
		NO-54	72			NO-24	56			NI-15	46				
		NO-53	71			NO-23	55			NI-14	45				
		NO-52	70			NO-22	54			NI-13	44				
		NO-51	69			NO-21	53			NI-12	43				
		NO-50	68			NO-20	52			NI-11	42				
		NO-49	67			NO-19	51			NI-10	41				

SHOWN IN CAD 1

SHOWN IN CAD 1

SHOWN IN CAD 1

SHOWN IN CAD 1

TS (A1-C)
SW FRAME
J8835884-C

TS (A1-D)
SW FRAME
J8835884-C

CONTROLLER AND CONNECTOR CIRCUIT

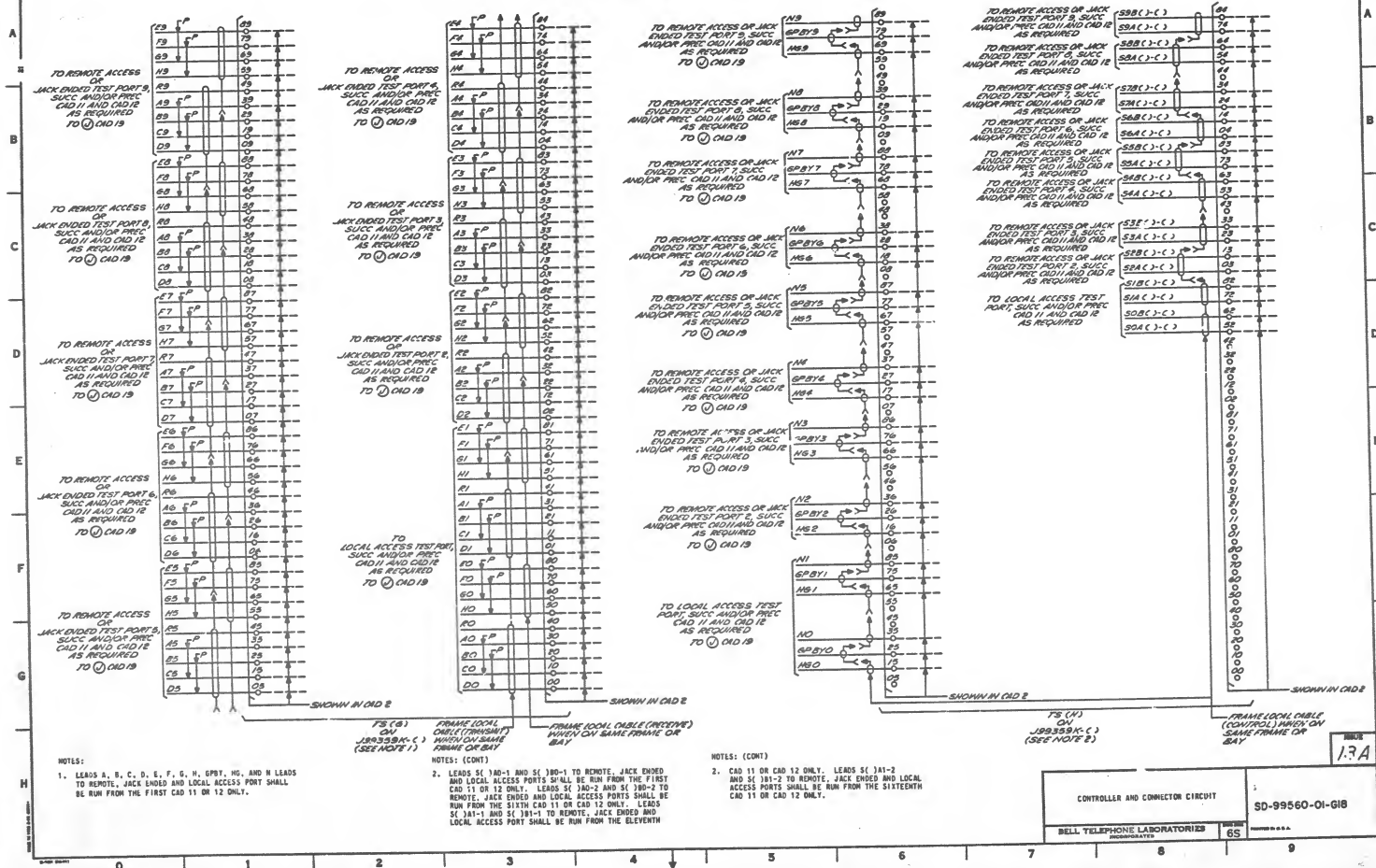
SD-99560-01-617

BELL TELEPHONE LABORATORIES

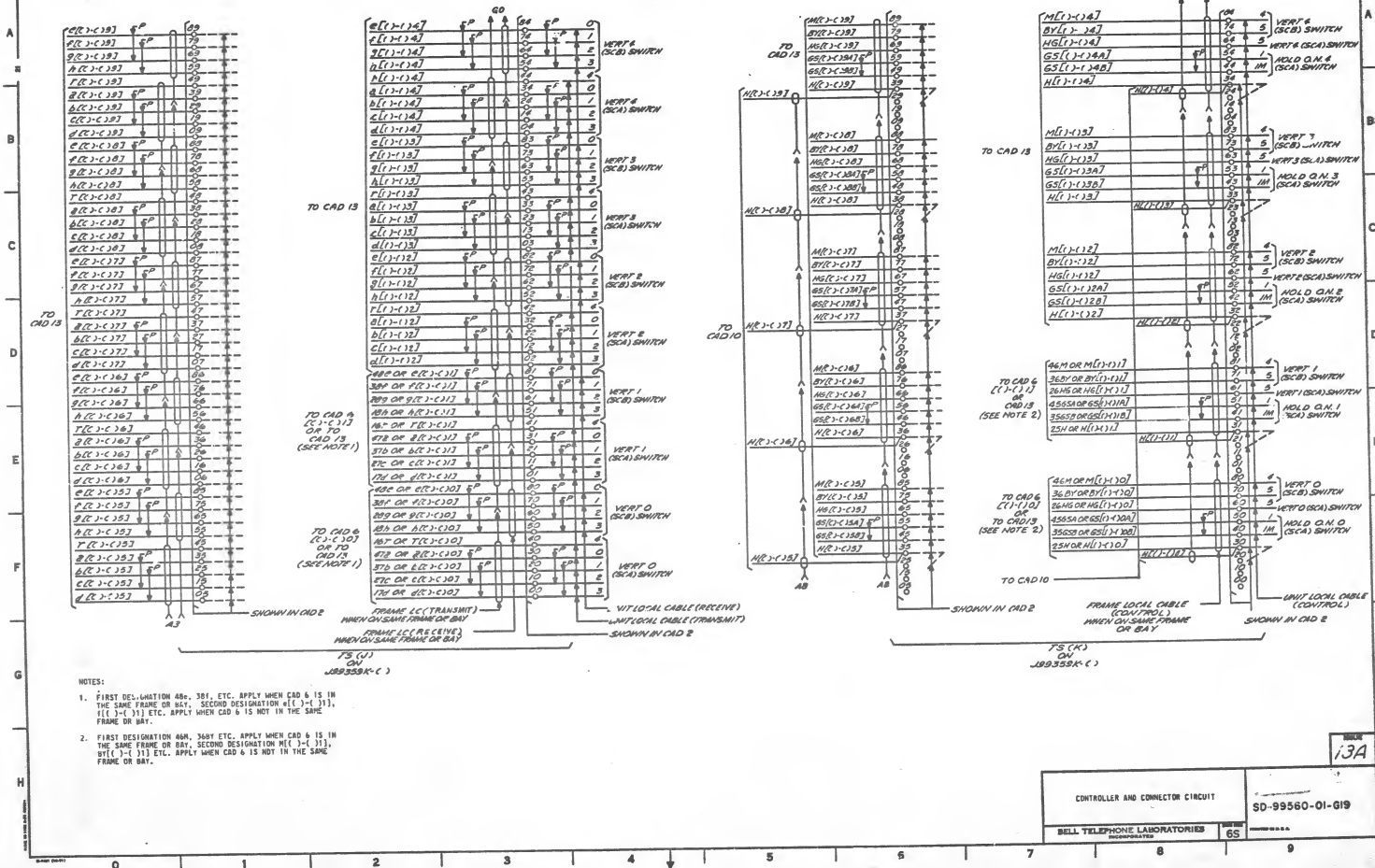
65

13A

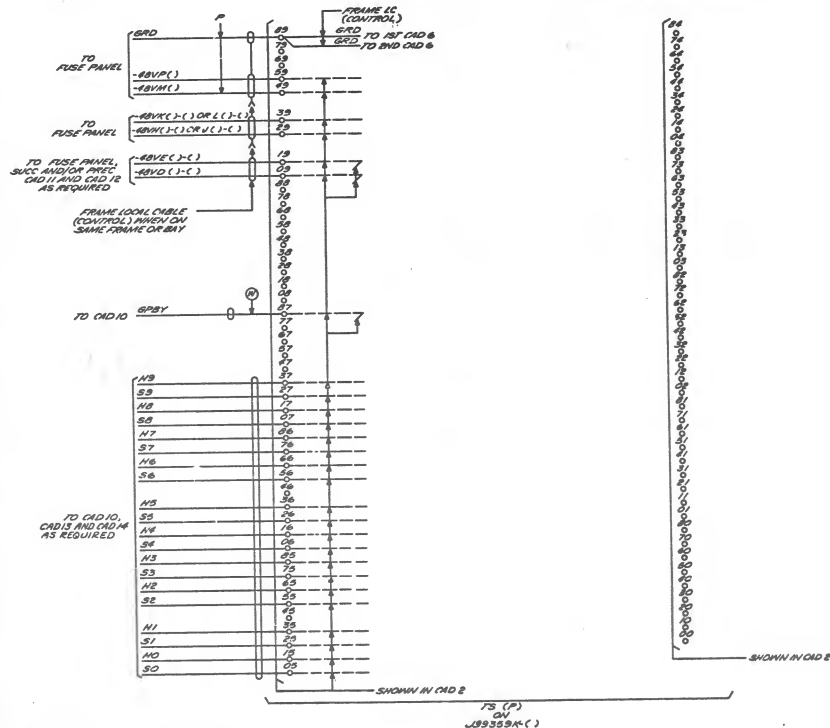
(FOR APP FIG 2)
(FOR 7' FRAME ARRANGEMENT



PART OF CAD 11
(FOR APP FIG. 2)
(FOR 7' FRAME ARRANGEMENT)



PART OF CAD 11
(FOR PART 118.2)
(FOR T FRAME ATTACHMENT)



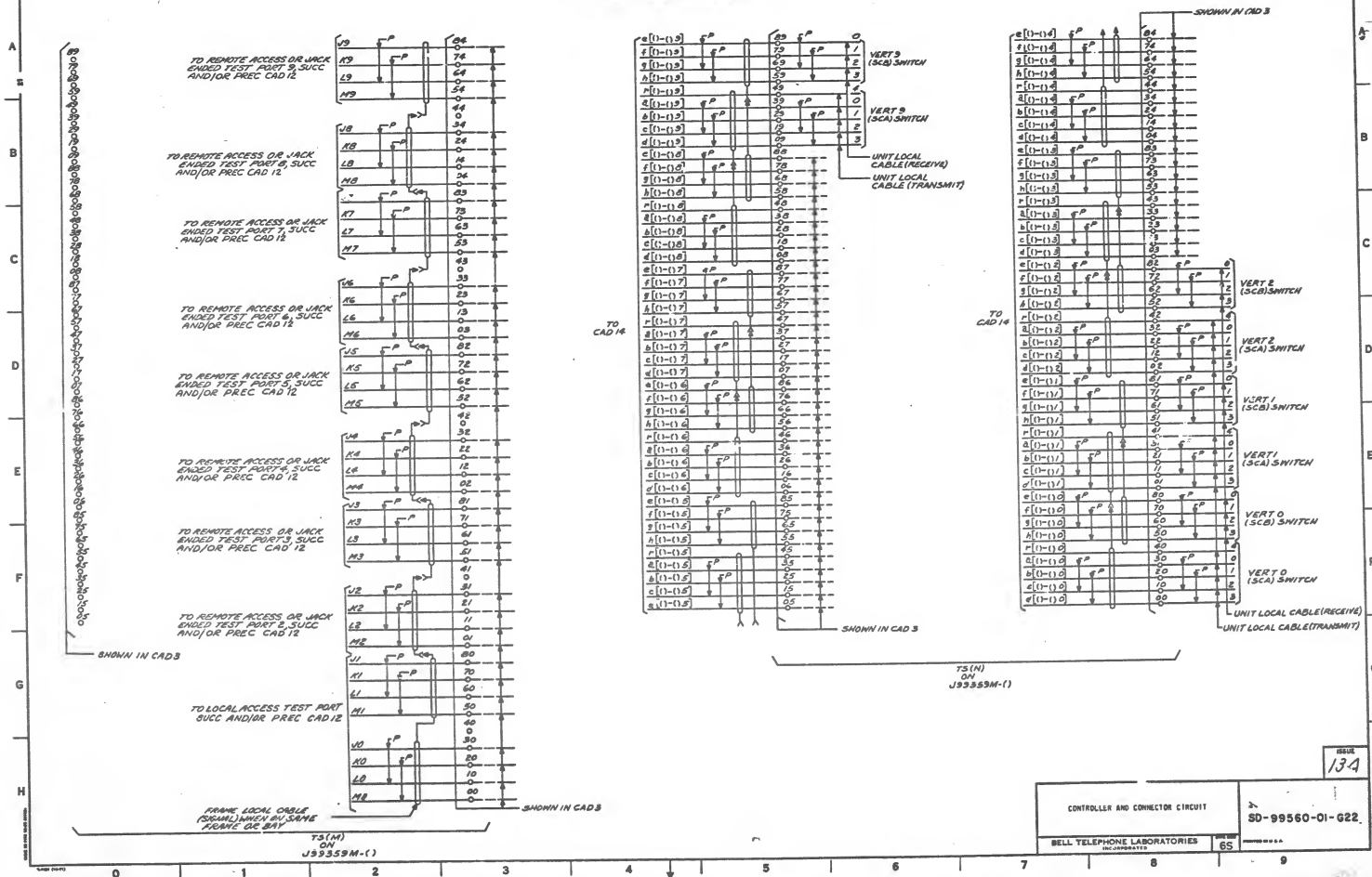
NOTES:
1. LEADS H0, S0, THRU H9, S9, AND GPBY TO CAD 10
SHALL BE RUN FROM THE FIRST CAD 11 ON CAD 14
ONLY.

CONTROLLER AND CONNECTOR CIRCUIT		SD-99560-01-620
BELL TELEPHONE LABORATORIES NEW YORK, N.Y.	65	1.3A

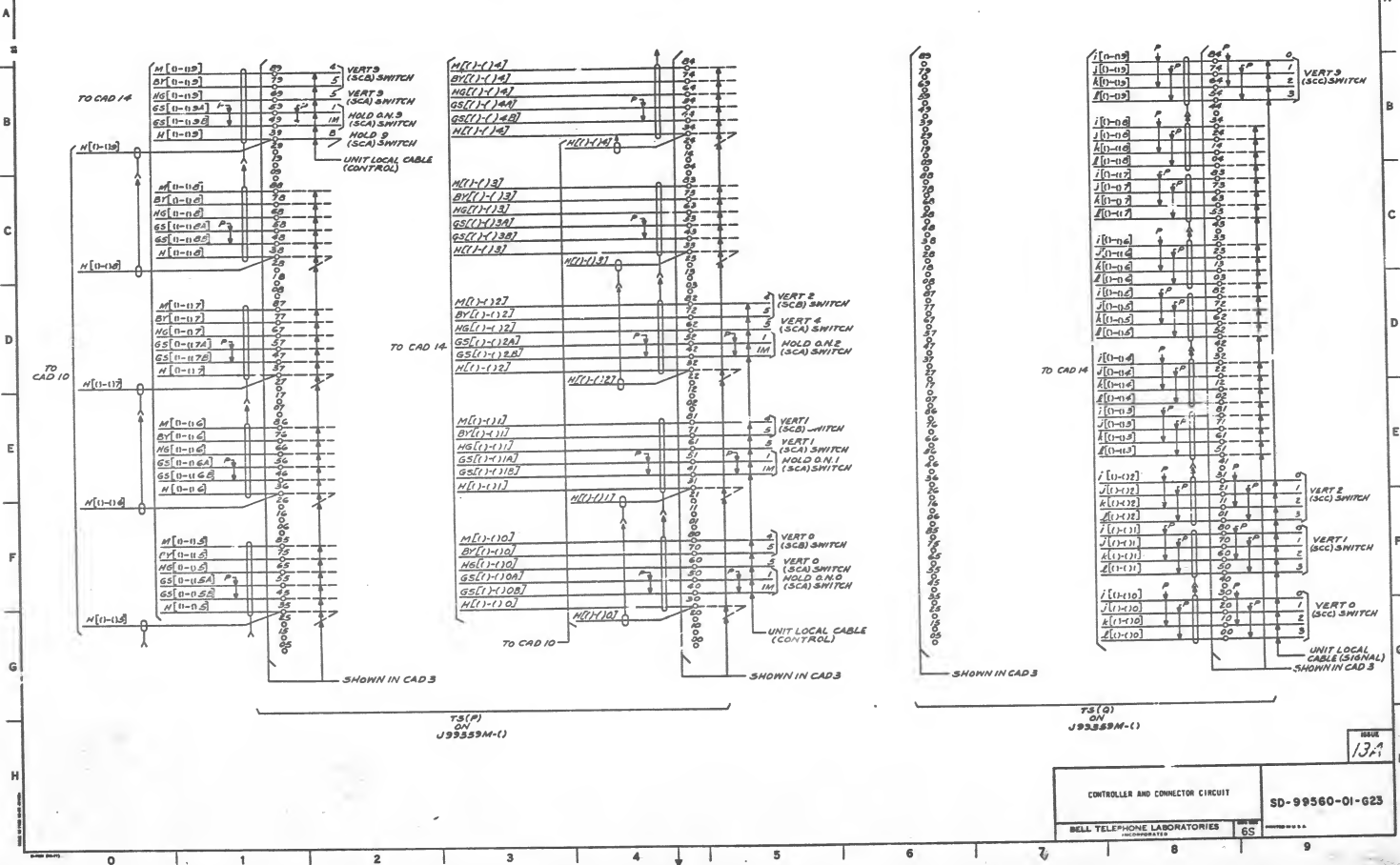
(FOR APP FIG. 1, "S", "T", AND "Z" OPTION)
(FOR 7' FRAME ARRANGEMENT)



PART OF CAD 12
(FOR ADD FIG 2, 3, 4, 7 AND 12 OPTION)
(FOR 7 FRAME ARRANGEMENT)



CONTROLLER AND CONNECTOR CIRCUIT BELL TELEPHONE LABORATORIES	SD-99560-01-623 6S PRINTED IN U.S.A.
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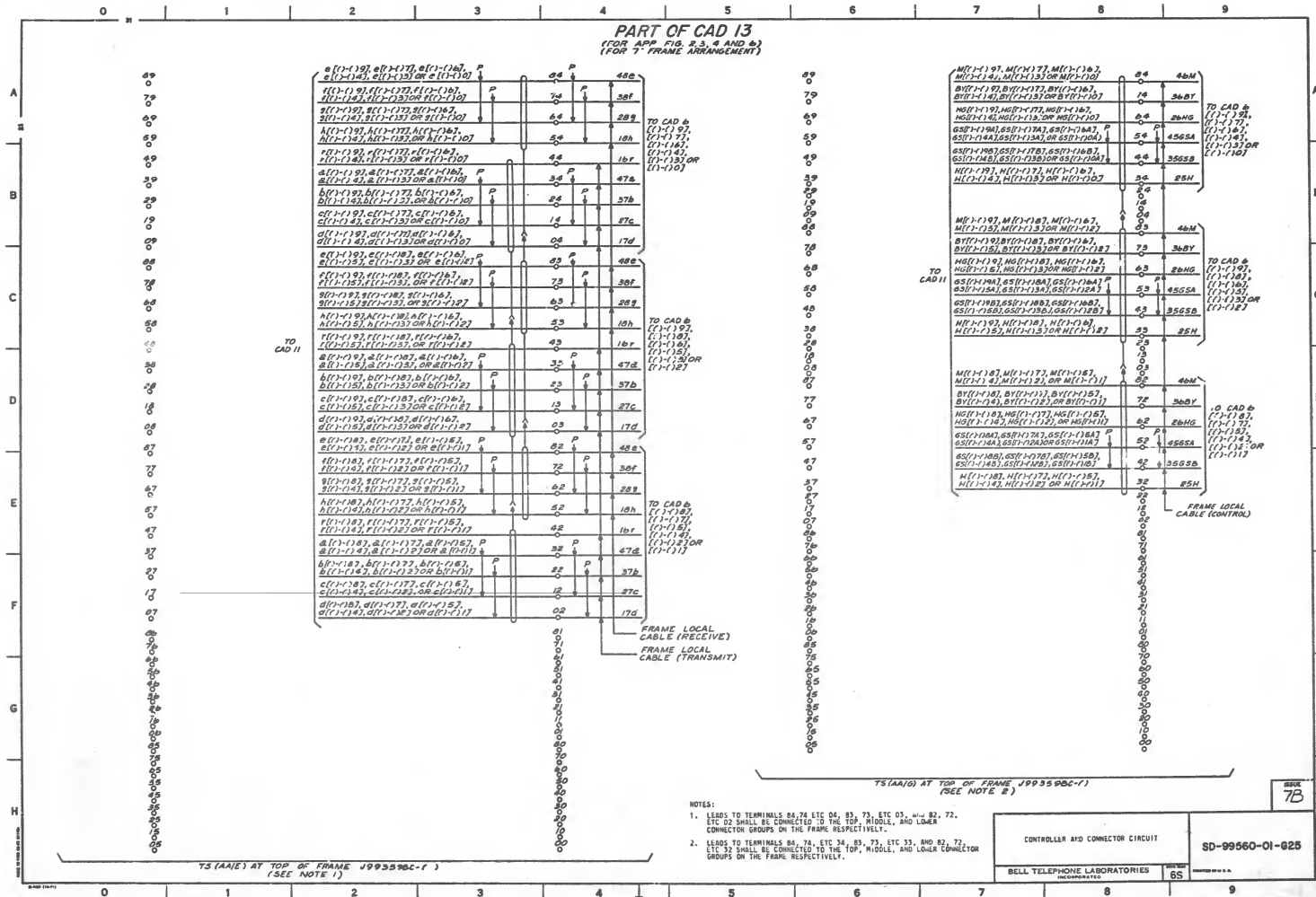
[illegible]

BELL TELEPHONE LABORATORIES

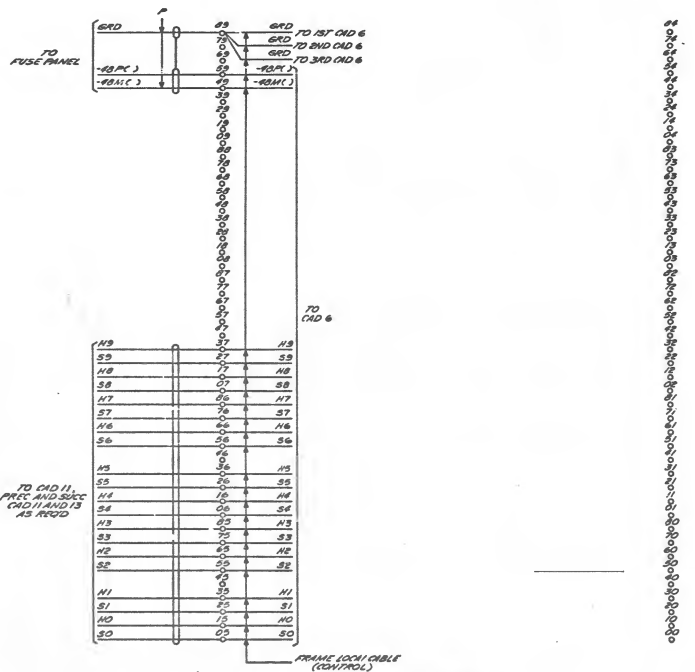
65

13A

PART OF CAD 13 (FOR 7-FRAME ARRANGEMENT)



PART OF CAD 13
(FOR APP. 1, 2, 3, 4 AND 6)
(FOR 7 FRAME ARRANGEMENT)



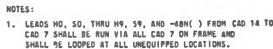
NOTES:

1. LEADS NO. 50, THRU 59, 59, AND -RPM() AND -RPM() FROM CAD 13 TO CAD 6 SHALL BE RUN VIA ALL CAD 6 ON FRAME AND SHALL BE LOOPS AT ALL UNEQUIPPED LOCATIONS.

CONTROLLER AND CONNECTOR CIRCUIT		SD-99560-01-626
BELL TELEPHONE LABORATORIES PHILADELPHIA, PA.	6S	

7B

(FOR APP FIG. 2, (Z) OPTION, 3(Y) OPTION, AND APP FIG. 5)
(FOR 7' FRAME ARRANGEMENT)



TS (AA/6)
AT TOP OF FRAME
J09359BF-()

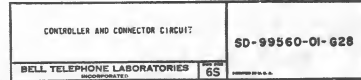
134

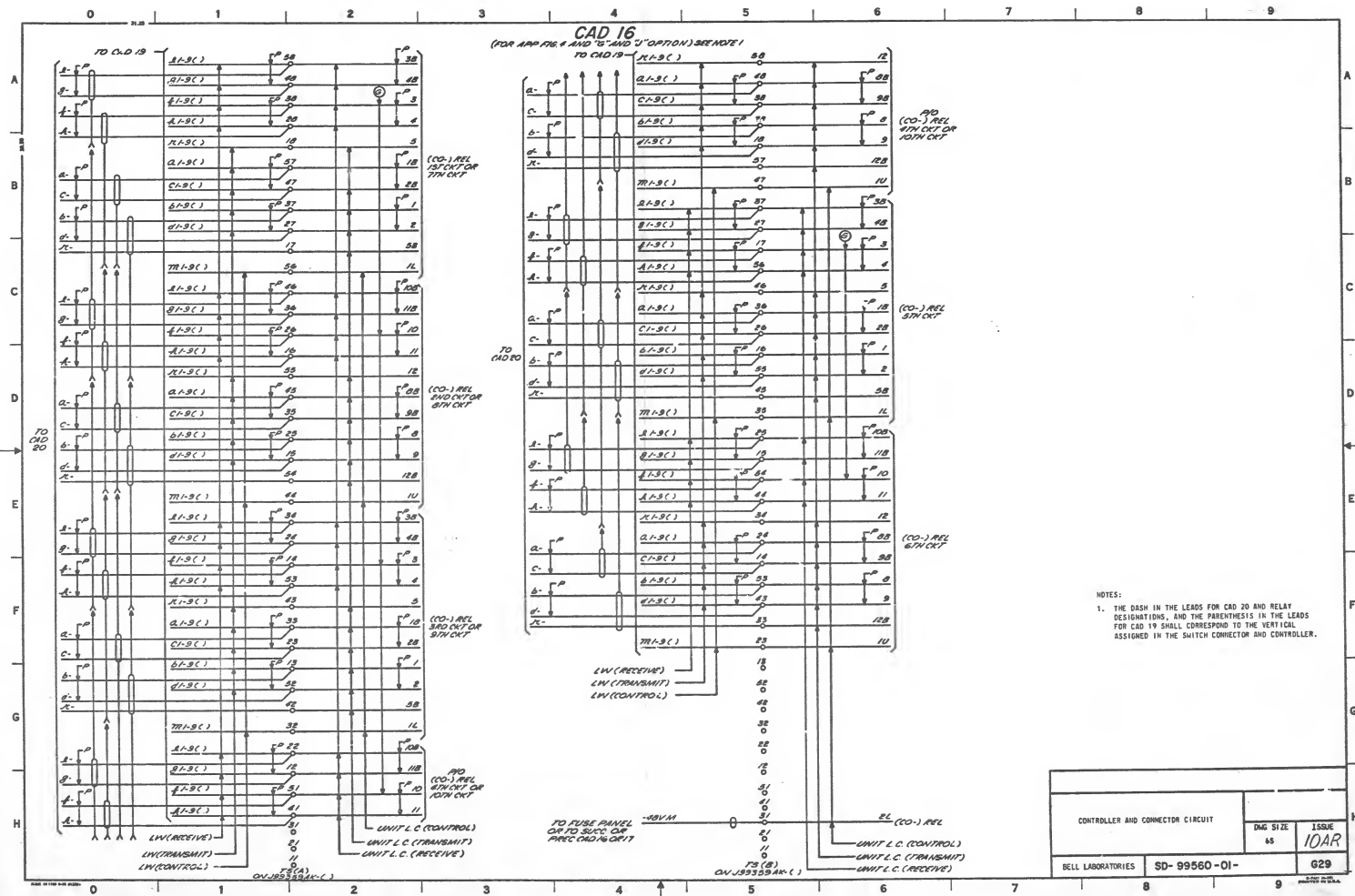
CONTROLLER AND CONNECTOR CIRCUIT

BELL TELEPHONE LABORATORIES
INCORPORATED

SP-99560-01-G27

(FOR 2-WIRE MFT NOT EQUIPPED WITH MAINTENANCE
CONNECTORS DIRECT CONNECTION ONLY).
(SEE SHEET NOTES 1, 2 & 3)

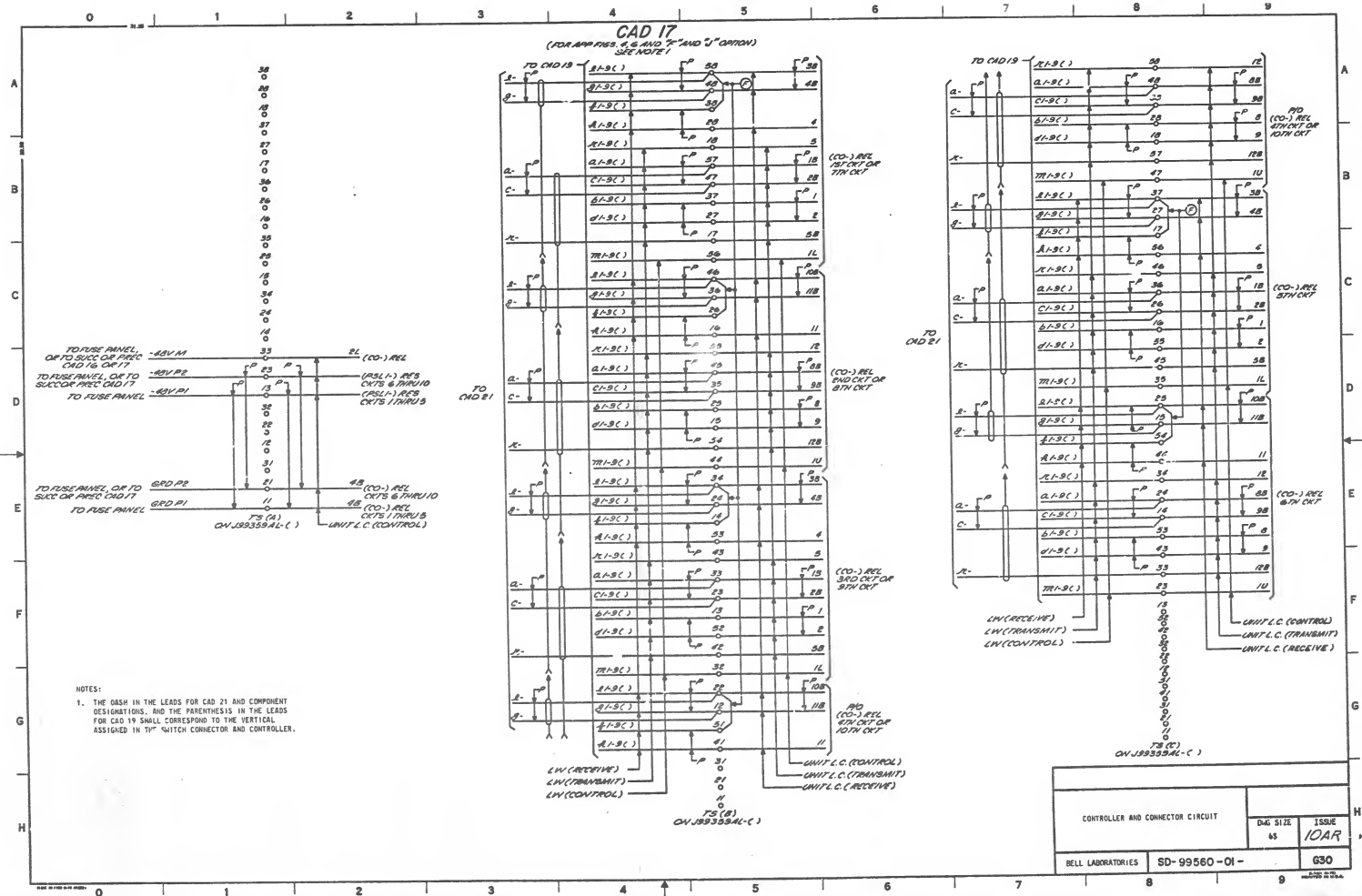


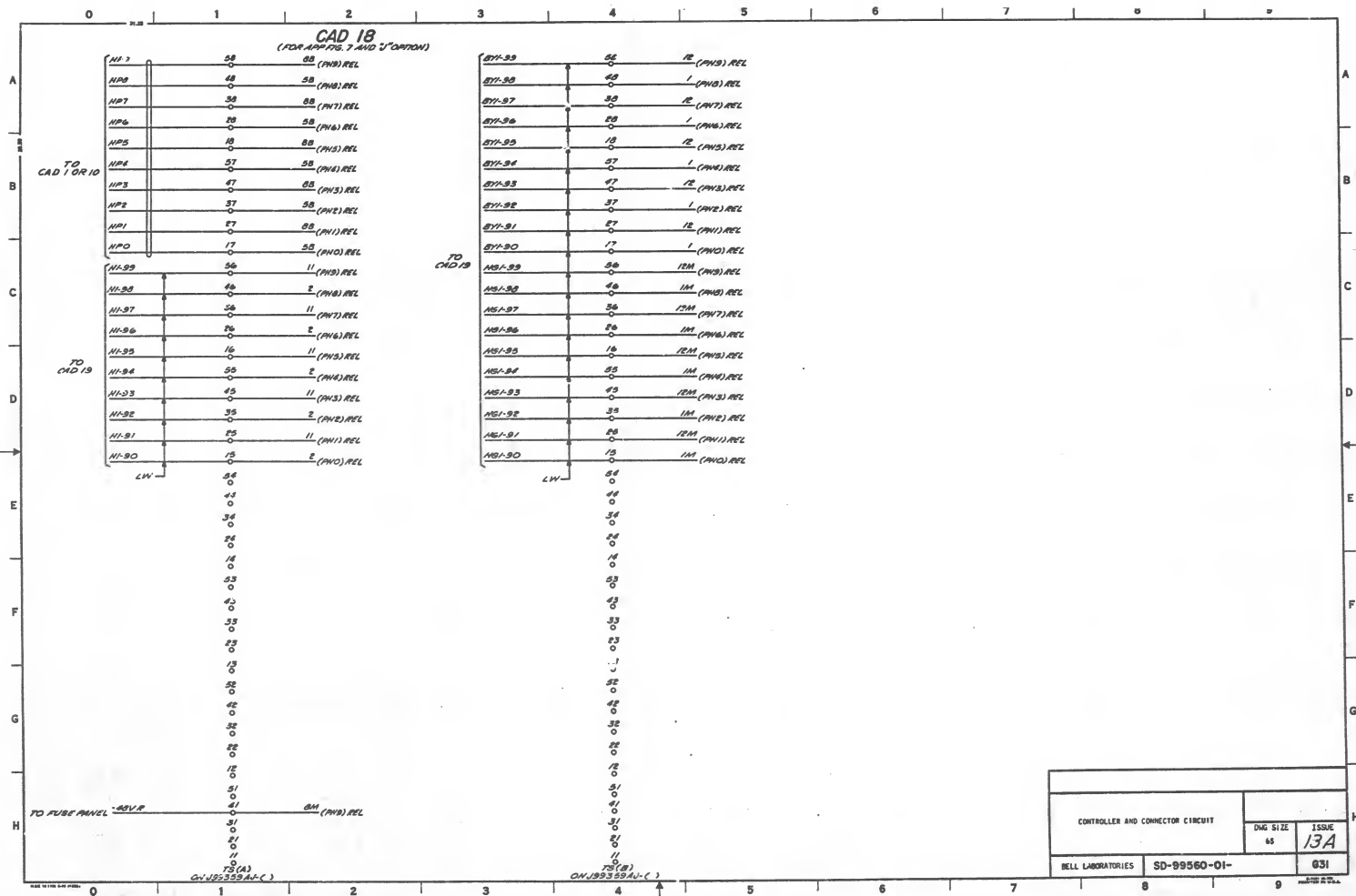


NOTES:

1. THE DASH IN THE LEADS FOR CAD 20 AND RELAY DESIGNATIONS, AND THE PARENTHESIS IN THE LEADS FOR CAD 19 SHALL CORRESPOND TO THE VERTICAL ASSIGNMENT IN THE SWITCH CONNECTOR AND CONTROLLER.

CONTROLLER AND CONNECTOR CIRCUIT		DWG. SIZE 65	ISSUE 10AR
BELL LABORATORIES	SD-99560-01-		G29





PART OF CAD 19 (FOR AMPLS, 2 AND 3 OPTION) (FOR 114 AND 115 TYPING ARRANGEMENT)

TO FIRST
CAD 2, 3, 11, OR
12 AS REQUIRED

TO FIRST
CAD 2, 3, 11, OR
12 AS REQUIRED

TO FIRST
CAD 2, 3, 11, OR
12 AS REQUIRED

TO REMOTE ACCESS OR
JACK ENDED TEST PORT 9

TO REMOTE ACCESS OR
JACK ENDED TEST
PORT 8

TO REMOTE ACCESS OR
JACK ENDED TEST
PORT 7

TO REMOTE ACCESS OR
JACK ENDED TEST
PORT 6

TO REMOTE ACCESS OR
JACK ENDED TEST
PORT 5

TO REMOTE ACCESS OR
JACK ENDED TEST
PORT 4

TO REMOTE ACCESS OR
JACK ENDED TEST
PORT 3

TO REMOTE ACCESS OR
JACK ENDED TEST
PORT 2

TO LOCAL ACCESS
TEST PORT

FE (N)
ON
J99559K-C

NOTES:

1. THIS UNIT IS MOUNTED ON A MISCELLANEOUS RELAY RACK AND REPLACES SWITCH CONNECTOR AND CONTROL UNIT 1-9 WHEN PHANTOM GROUP OPERATION IS REQUIRED.

CONTROLLER AND CONNECTOR CIRCUIT

DWG SIZE
AS

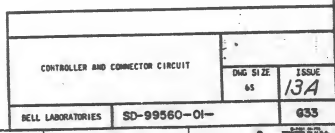
ISSUE
13A

BELL LABORATORIES

SD-99560-01

632

(FOR APP'XS. 2 AND "J" OPTION)
(FOR H'-6" AND 7' FRAME ARRANGEMENT)



0 1 2 3 4 5 6 7 8 9

PART OF CAD 19
(FOR APP FIG. 2 AND "J" OPTION)
(FOR 11"6" AND "T" FRAME ARRANGEMENT)

PO
PDS PANEL

-88VE (1-1)
-88V (1-1)
-88VE (1-1)
-88V (1-1)

SHOWN IN CRD 2

TS (P)
ON
JP9359K-1

SHOWN IN CAD 2

CONTROLLER AND CONNECTOR CIRCUIT

DWG SIZE
65

ISSUE
10AR

BELL LABORATORIES

SD-99560-01-

634

The diagram shows a cross-section of a four-wire cable. It consists of four twisted pairs of wires, labeled TA, RA, TB, and RB. A central shield is labeled 'SH'. The outer conductors are labeled 'A', 'B', 'C', and 'D'. The diagram is labeled 'TO PRIVATE LINE' on the left and 'TO CAD 16' on the right.

CROSS CONNECT TO GRD

CROSS CONNECT TO 480V B&T WIRE RES LAMP

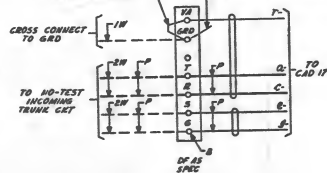
GND
VA
VB



STRAP TO GND OR
LEAVE UNSTRAPPED
IN ACCORDANCE WITH
NOTES 108 AND 110

1/4" OPTION)

STRAP TO LIKE TERMINALS
ASSOC WITH SWITCH
CONNECTOR AND CONTROL
UNIT 1-9 (PHANTOM GROUP)



1. FRONT OF TERMINAL STRIP SHALL BE STAMPED WITH CONNECTOR GROUP AND CONTROL NUMBER AS WELL AS OTHER STAMPINGS NORMALLY PROVIDED.

CONTROLLER AND CONNECTOR CIRCUIT		DWG. SIZE	ISSUE
		65	9B
BELL LABORATORIES	SD-99560-01-		635